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African Bird Club

Bulletin of the African Bird Club Vol 20 No 2 September 2013

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Is Sharpe's Longclaw a fire-dependent species?

Bird observations around Juba, South Sudan

African Grass Owl in southern Africa

Vulture observations in the Sahel of Chad and Niger

How to see Madagascar Pochard

First records for Angola of Yellow-throated Cuckoo, South African Cliff Swallow and Red-tailed Leaflove

Re-identification of a booby in Nigeria

Grey Ground Thrush in Nigeria

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The African Bird Club aims to:

- provide a worldwide focus for African ornithology
- encourage an interest in the conservation of the birds of the region
- liaise with and promote the work of existing regional societies
- publish a twice-yearly colour bulletin
- encourage observers to visit lesser known areas of the region
- encourage observers to actively search for globally threatened and near-threatened species
- run the ABC Conservation Programme

Registered Charity No 1053920

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Membership is open to all. Annual subscription rates are:

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Family	Europe & Africa: UK£24	Rest of the World: UK£26
Student	Europe & Africa: UK£12	Rest of the World: UK£14
Supporting	UK£35 minimum	
Life	UK£500	

To join or for further details please visit the ABC website (where there are secure online payment facilities) or write to the Membership Secretary—see contact information below.

ABC Website

http://www.africanbirdclub.org

Photographers and artists

ABC is always looking for drawings and photos to publish in the Bulletin. If you are interested in contributing, please contact the Graphics Editor, Lionel Sineux, lionel.sineux@gmail.com

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Referees for *Bull. ABC* Vol. 20

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The Bulletin of the African Bird Club

The Bulletin of the ABC provides a forum for news, letters, notices, recent publications, expedition results, reviews and publication of studies on African birds by contributors from throughout the world. Publication of results in the Bulletin of the ABC does not preclude publication of final results as journal papers either by the ABC or elsewhere. No material should, however, be submitted simultaneously to the Bulletin of the ABC and to any other publication.

Brief notes for contributors appear elsewhere in this Bulletin and further details are available from the Editor (editor@africanbirdclub.org).

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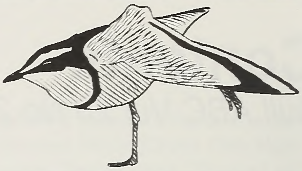
Club News



New ABC Council Members, and some thanks

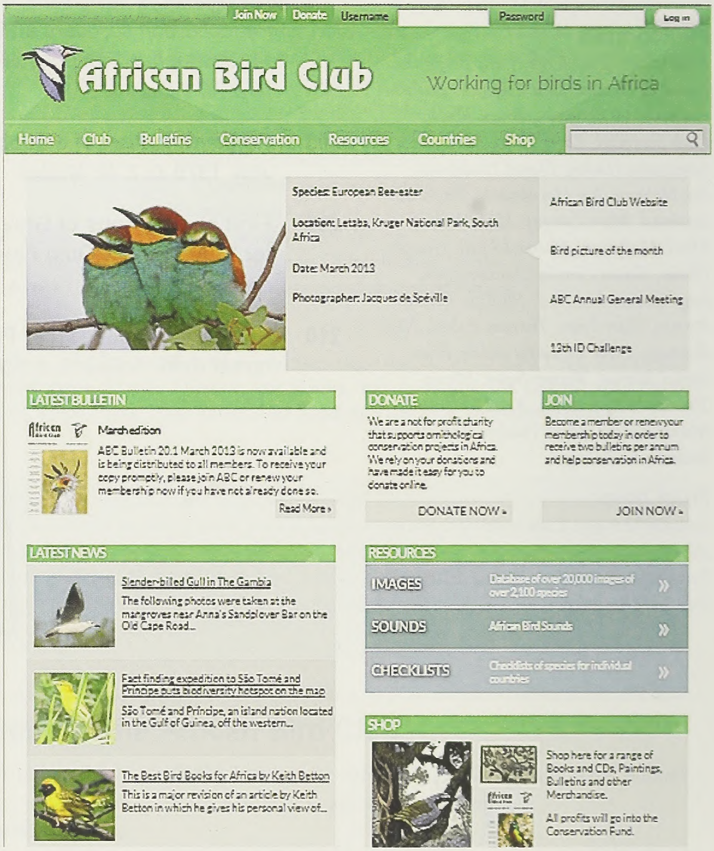
At the AGM we were pleased to welcome two new Council Members: Geoff Orton and Richard Charles. Geoff has a wealth of volunteering experience, was co-opted during 2012 and quickly took on the Secretary's role, in addition to running our Birdfair activities. Richard Charles is our new Corporate Sponsor Officer. He is a bird ringer who has travelled widely in Africa. More recently, we have also co-opted Nigel Birch and Paul Buckley to help with Council's work. Nigel has lived in several African countries and will be our liaison point with regional representatives around the world. Paul will be known to many through his international conservation work with the Royal Society for the Protection of Birds.

Sadly, we are losing some volunteers as well. Many thanks to Phil Atkinson, Stephen Cameron and Alan Williams, who stood down at the AGM. Stephen has run the Corporate Membership scheme for four years, and it is a credit to him that we have such loyal support from so many companies. Alan Williams joined Council in 1999, being Treasurer for three years, Membership Secretary for three years, and then Treasurer again for another three-year stint. Phil Atkinson is a founder member of the Club who joined Council in 1996. He was the Club's second Chairman in 1998–2005 and, after a short break, he returned for five years, two of them as Vice-Chairman. His work at the British Trust for Ornithology has limited his availability, but Phil has always been there for ABC, and I'm sure that he, Alan and Stephen will always be on hand in future. Cumulatively, the almost 35 years of service between them has been a tremendous contribution to the Club, and we are grateful for their time and effort. Subsequently, Anthony Cizek also decided to stand down after one year on Council; we thank him too, particularly for re-organising the membership database.

ABC website: can you help us?

Since its inception some 15 years ago, the website has become extremely important to the Club, both in terms of running its business and as a source of information about Africa and its birds. All work on the website had been done on a voluntary basis by a small group of committed members; however, it had become more difficult and expensive to maintain. As a result, the Trustees agreed to fund the development of a new website and a professional development company, Southmedia, was commissioned to do so following a short selection process. The new website became operational in March this year at www.africanbirdclub.org and many members will already have seen it.

The major objectives of the new website are: to provide a more



Species: European Bee-eater

Location: Letaba, Kruger National Park, South Africa

Date: March 2013

Photographer: Jacques de Spéville

March edition

ABC Bulletin 20.1 March 2013 is now available and is being distributed to all members. To receive your copy promptly, please join ABC or renew your membership now if you have not already done so.

We are a not for profit charity that supports ornithological conservation projects in Africa. We rely on your donations and have made it easy for you to donate online.

Become a member or renew your membership today in order to receive two bulletins per annum and help conservation in Africa.

Slender-billed Gull in The Gambia

The following photos were taken at the mangroves near Anna's Sandplover Bar on the Old Cape Road...

Fact finding expedition to São Tomé and Príncipe puts biodiversity hotspot on the map

São Tomé and Príncipe, an island nation located in the Gulf of Guinea, off the western...

The Best Bird Books for Africa by Keith Betton

This is a major revision of an article by Keith Betton in which he gives his personal view of...

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Shop here for a range of Books and CDs, Paintings, Bulletins and other Merchandise.

All profits will go into the Conservation Fund.

A screengrab from the new website

modern design with a consistent look and navigation structure across all its parts; to use an open-source Content Management System in order to make maintenance easier and cheaper; to set up an integrated shop for the purchase of goods and membership subscriptions; to add a number of new functions including comprehensive search and comments capabilities; and to provide a platform for future developments.

It continues to be our aim to make the website the primary source of information for anyone interested in Africa and its birds. We plan to continue to update and develop the site with new capabilities, but in order to do this on a long-term basis we need additional resources. If there are any members who could help with this and have skills in the development and maintenance of websites, we will be pleased to hear from them. Please contact John Caddick (john.caddick@care4free.net).

ABC visit to Natural History Museum, Tring, 17 October 2013

A visit to the ornithological section of the Natural History Museum at Tring, Herts., UK, has been organised for ABC members. The behind-the-scenes tour will be on Thursday, 17 October 2013 at 14.00 hrs, and will last *c.*2 hours. The tour will cost UK£7.50 per person. The free public museum is open from 10.00 to 17.00 hrs, affording time for a visit and lunch before the tour if so desired. General information can be found at http://www.nhm.ac.uk/tring/visiting/. This will be an interesting opportunity for members, but the number of places will be strictly limited. To book, please e-mail john.caddick@care4free.net no later than 30 September.

ABC Conservation Tours 2014: Namibia and South Africa

The Club is delighted to announce that, thanks to continuing collaboration with our Corporate Sponsors, two Conservation Tours are in the diary for 2014. These trips make an important contribution to our Conservation Fund through the generosity of the sponsor, and can be enthusiastically recommended to all members, their friends and families.

The first, run by Neil MacLeod of SafariWise, will be on 11–20 February 2014 and will visit the birding hotspots of central Namibia, with the promise of up to 300 species. Details of this very tempting trip appear in the advertisement on p. 252 of this issue of the Bulletin.

The second, run by Chris Lotz of Birding Ecotours, will be in October 2014. Chris has put together two trips, running consecutively, so they can be booked as a whole or separately. On 11–18 October 2014 is a Western Cape Birding Adventure, which will include a pelagic trip, Cape and Karoo habitats. A subtropical South Africa tour will follow directly, from 18 October until 2 November 2014, with the opportunity of seeing over 400 species across eastern South Africa (see advert on p. 246).

If you are contemplating a first-class birding trip to Africa in 2014 you could do no better than consider either—or even both—of these tours. Each participant assures a generous contribution from the tour operator directly to the Club's Conservation Fund.

ABC Raffle 2013: great prizes to win!

This year's raffle, with all proceeds going to the Club's Conservation Fund, will be launched at the British Birdwatching Fair at Rutland Water on 16–18 August. Tickets are also included with this issue of *Bull. ABC*. The prize list should guarantee a sell-out, so make sure you tuck away some for yourself and encourage others to follow suit. First prize will be a pair of Swarovski Swarovision 8 × 32 EL binoculars, with a recommended retail price of UK£1540. Following closely behind are: Ashanti African Tours with a UK£500 discount voucher towards a future Ghana trip; SafariWise offer a 50% discount to one person on the ABC Conservation Tour to Namibia, February 2014, and a copy of SafariWise owner Neil MacLeod's new book *An Expert's Guide to Finding Animals in Etosha*; Venture Uganda have a good package of 2–3 local Ugandan birding books, a checklist and a cap; on behalf of Safari Consultants Bill Adams has donated a copy of *Safari Dreaming*, a book about the Luangwa Valley, and from Birding Africa, Callan Cohen has given a copy of his co-authored book *Southern African Birdfinder*, with a value UK£20. The Club thanks all of the prize providers for their generosity, and it is not impossible that the list will have grown a little by the time tickets go on sale.

A pair of Swarovision 8 × 32 binoculars

Report on joint meeting of the African Bird Club / British Ornithologists' Club / Natural History Museum, 6 April 2013

The day's programme at the imposing Natural History Museum in London comprised six talks, three before lunch and three after. The morning started with a talk by Paul Donald on the Liben Lark *Heteromirafra sidamoensis* possibly the most threatened species in mainland Africa. Paul was standing in for Bruktawit Abdu, who unfortunately had been unable to travel from Ethiopia as originally planned. Paul spoke about the species' taxonomic history with respect to congenerics elsewhere in the Horn of Africa, and described the research in Ethiopia to understand the lark's requirements and to conserve its habitat on the Liben Plain (see also p. 146). This was followed by a talk on Lesser Crested Terns *Thalasseus bengalensis* in Libya by Abdulmaula Hamza, who explained that there are now three breeding sites for the species all of which have seen increases in population during recent years. Abdulmaula has carried out detailed research on the species' feeding requirements and has carefully analysed its diet. He has also ringed a large number of chicks, *c*.20 of which have been recovered in different parts of the Mediterranean and West Africa. The morning session concluded with a presentation about birds and birdwatching in Rwanda, Africa's most densely populated country, given by Jason Anderson. Jason described the various habitats within Rwanda and reviewed the avifauna in each. His talk was illustrated with many high-quality photographs and also accompanied by sound-recordings.

Following the ABC AGM, the talks resumed with a fascinating account by palaeontologist and artist Julian Hume of his work reconstructing the lost world of the Dodo *Raphus cucullatus* and the other extinct birds of the Mascarenes, from the fossil record and the scant historical documentation of the early settlers. Dr Siobhan Cox then discussed her work producing a molecular phylogeny for the white-eyes (*Zosterops*) of the African mainland, focusing on East Africa. Her results indicate that traditional taxonomic understanding is incorrect, notably for Montane White-eye *Z. poliogaster*, and that there are probably more species than currently accepted. Nigel Redman concluded the day's programme with an account of a recent trip to the officially unrecognised Republic of Somaliland, a seldom-visited self-governing country that is technically part of Somalia despite declaring independence in 1991. His talk focused on the poorly known endemic and near-endemic birds of the Somali region, and featured photographs of most species. Nigel also enthralled the audience with the number of larks found in the region, their taxonomic status and history. Attendance at the meeting was excellent with *c*.110 people present.

Contributed by David Fisher

Figure 1. Speakers at the ABC AGM, London, April 2013, from left to right: Nigel Redman, Abdulmaula Hamza, Paul Donald, Siobhan Cox and Jason Anderson; Julian Hume had already left (John Caddick)

Conférenciers à l'Assemblée générale annuelle de l'ABC, Londres, avril 2013 ; de gauche à droite : Nigel Redman, Abdulmaula Hamza, Paul Donald, Siobhan Cox et Jason Anderson (Julian Hume avait déjà quitté la réunion) (John Caddick)

ABC AGM: 12 April 2014

The next AGM should be an event not to miss: it is the Club's 20th birthday, and we want it to be special. The event will be held once again at the Natural History Museum in London and among the confirmed speakers is Tim Birkhead, best-selling author and Professor of Behavioural Ecology at the University of Sheffield. Also (subject to availability) we hope to be joined by award-winning BBC TV news correspondent and avid birder, Frank Gardner. More details will be circulated in January and on the ABC website.

New Graphics Editor for the Bulletin

After eight years as Graphics Editor, Pete Leonard has elected to stand down from this role; we are fortunate to welcome Lionel Sineux as his successor. He and Pete have worked collaboratively on this issue. It is a particular pleasure to thank Pete for his outstanding contribution to the Bulletin during a period when it has not only increased in size, but also included much more colour and many more photographs than formerly. Pete's attention to detail and ability to work to often-short deadlines will be much missed, but we now look forward to working with Lionel, who is based in Côte d'Ivoire. Photographic submissions, e.g. for front covers or illustrative material for Africa Round-up, Conservation Awards and Recent Reports are always welcome and can be sent to Lionel at lionel.sineux@gmail.com

Contributed by Guy Kirwan & Ron Demey

African Bird Club *Conservation Fund*

The South African ABC members' account, operated on behalf of ABC by BirdLife South Africa (BLSA), has been closed. At 31 December 2012 the balance of R16,470.07 amounted to *c.*UK£1,193.57. ABC Council voted to award the balance to BLSA's work to conserve the White-winged Flufftail *Sarothrura ayresi*. This species is restricted to a few high-altitude marshes in Ethiopia and South Africa, has a very small population and highly specific habitat requirements. It is severely threatened by continued habitat destruction and the additional threats posed by mining. Research activities have just commenced and include genetic studies, intense surveys of suitable wetlands and a proposed breeding facility at the Johannesburg Zoo.

The species is considered Critically Endangered in South Africa and globally Endangered by IUCN. Perhaps fewer than 250 individuals remain of this regular Afrotropical migrant, which breeds in Ethiopia and apparently spends the non-breeding season in South Africa. In Ethiopia, it is severely threatened by overgrazing and a regional conservation approach is warranted. The genetic research should confirm—or disprove—connectivity between South Africa and Ethiopia. BLSA are further investigating the use of geolocators to ascertain the species' migratory status.

Intensive surveys will be undertaken next year in South Africa at the ten wetlands where this flufftail is known to occur. In collaboration with universities, several research projects will be undertaken to study the species' population size, distribution and behaviour. Construction of the captive facility will commence this year with the aim to study behaviour and record its vocalizations, which are unknown. The work in Ethiopia will be a collaboration with the Ethiopian Wildlife Natural History Society.

New Awards

The Conservation Committee reviewed 19 proposals ahead of the February 2013 Council meeting and recommended six for funding. Four other applicants were requested to resubmit and offered advice on how to improve their proposals. Council approved all six recommended projects. ABC funds of UK£1,997 were used to part-fund the six; the remaining funding was covered by various sponsors. A total of UK£9,252 was therefore released as follows.

Hilltop forests in Kenya

Rogers Makau and Dr Ronald Mulwa of the Ornithology Section, National Museums of Kenya, received UK£1,490, generously funded by Paul Lascelles and Paul Bristow, to survey the avifauna of five hilltop forests: Mbooni South, Mbooni North, Utunene, Kitoo and Mataa, all in Machakos District. The aim is to determine the presence or absence of bird species of conservation importance (endemics, IUCN Red List species, regionally threatened species, etc.) and to assess current and potential threats, and conservation status.

Hooded Vulture in West Africa

Vultures throughout Africa are in serious decline, and Hooded Vulture *Necrosyrtes monachus* in West Africa is no exception. Japheth Roberts of the Ghana Wildlife Society received UK£1,430 to investigate the population and distribution of this species in the Accra metropolitan area. Direct counts at identified roost sites within the 300 km^2 metropolis will be carried out. Roost sites will be mapped using two approaches, literature search and consultation, and visual tracking of birds departing from abattoirs. An awareness campaign to educate communities near roost sites on the importance of conserving the birds is also planned. This award was kindly sponsored by Tasso Leventis.

Hooded Vulture / Vautour charognard *Necrosyrtes monachus* (Augusto Faustino)

Cape Verde Warbler conservation

Dr David Richardson of the University of East Anglia, Norwich, received UK£1,500 for work on Cape Verde Warbler *Acrocephalus brevipennis*. The warbler is believed to have a population of *c.*1,500 and is confined to three islands, Santiago, São Nicolau and Fogo. It is listed as Endangered by IUCN with a declining population, but has never been studied in detail. Dr Richardson and his UEA team have worked extensively on Seychelles Warbler *A. sechellensis* (now listed as Vulnerable, having previously been classed as Critically Endangered). ABC funds will be used to pay the expenses and salary of a field technician identified

Cape Verde Warbler / Rousserolle du Cap-Vert *Acrocephalus brevipennis* (Dick Forsman)

by the local NGO 'Biosfera I' to work as an assistant on this project, and significantly boost conservation capacity in the islands. The Puffback Fund generously funded this project.

Cream-coloured Courser in the Cape Verdes

A second project was funded in the Cape Verde Islands. Alex Tavares Gonçalves, of the NGO 'Fundação Maio Biodiversidade' and the University of Bath (UK), was awarded UK£1,650 for a study to determine the population and distribution of the endemic subspecies of Cream-coloured Courser *Cursorius cursor exsul* on the island of Maio. The project will use colour ringing to identify individuals and observe nesting behaviour and success, and DNA sampling to determine the taxonomic status of *C. c. exsul.*

Cream-coloured Courser / Courvite isabelle *Cursorius cursor* (Dick Forsman)

Surveys for Kulal White-eye in Kenya

Lucy Wamuyu Muithui of the National Museums of Kenya received UK£1,835 for a project to enhance community forest management through avifaunal research and conservation at Mt Kulal, Kenya—a very poorly studied and isolated mountain. This Afrotropical highland is home to the endemic Kulal White-eye *Zosterops* (*poliogastrus*) *kulalensis*. The project will conduct intensive ornithological surveys and engage with the local Samburu community to increase awareness and commitment to conserve the forest. It was jointly funded via donations from Tasso Leventis and Paul Bristow.

Bab al Mandeb raptor survey

Eleyeh Omar Abdillahi of Djibouti Nature received UK£1,347 for a study of spring raptor migration across the Bab al Mandeb strait, from the Djibouti side. In 2010 ABC awarded UK£1,000 to the same proponents for a survey of Djibouti Francolin *Pternistis ochropectus* in the Mabla Mountains, but due to insecurity in the region this has not yet taken place. The UK£1,000 was therefore transferred to this project, and topped up with another UK£347 from ABC.

Rosy Bee-eater in Nigeria

Chima Nwaogu, a graduate of the A.P. Leventis Ornithological Research Institute (APLORI) received UK£2,553 to survey nesting colonies and investigate the breeding behaviour of Rosy Bee-eater *Merops malimbicus* in Nigeria. A poorly known intra-tropical migrant, the species is rare in Côte d'Ivoire, but common in Nigeria, Gabon and Congo, although absent from Cameroon. It breeds in large colonies on major rivers with large exposed sandbanks, and thereafter migrates to the coast. Only six colonies have ever been found, three of which were in Nigeria and held *c.*8,000, 18,500 and 23,700 nests, on the Rivers Niger, Kaduna and Benue, respectively. The aim is to establish the current status of these colonies; the timing and duration of nest digging by the bee-eaters; the duration of incubation and nest provisioning; and the bird's diet. Chima will be supervised by Dr Shiiwua Manu and will receive further advice from Shola Iwajomo and Jacinta Abalaka, two former APLORI graduates now undertaking doctoral studies in Europe.

African Bird Club *Conservation Fund*

Rosy Bee-eater / Guêpier gris-rose *Merops malimbicus* (John Caddick)

Because of the need to conduct field work during the nesting season this proposal was reviewed directly by ABC Council. The full award was generously sponsored by Tasso Leventis.

The Conservation Committee reviewed another 13 proposals ahead of the June 2013 Council meeting, and recommended seven for funding. Two other applicants were asked to resubmit and offered advice on how to improve their proposals. Council approved all seven recommended projects totalling UK£9,844.67. Donors provided UK£7,347.61, leaving ABC to cover UK£2,497.06.

Awareness campaign for Southern Ground Hornbill

Lucy Kemp of the Mabula Ground Hornbill Project in South Africa received UK£1,500, generously provided by the Puffback Fund, for a targeted poisoning awareness campaign for Southern Ground Hornbill *Bucorvus leadbeateri*. The funds will be used to run a workshop and advertising campaign to increase awareness of poisoning as a major threat to the species, and permit more contact with farmers via channels such as farming magazines, hunting magazines, billboards at farming co-ops in retail centres, and distribution of information at farmers' meetings. The approach will be to work with the farmers and offer alternatives to the pesticides they currently use. Feedback from farmers, both commercial scale and small-scale, will allow for adaptive management of the poisoning issue and provide insights on how best to tackle it. The benefits accrued will favour all of the savannah species facing the same threats from indiscriminate use of pesticides.

Blue Swallow in Kenya

Maurice Ogoma of the Zoology Department, National Museums of Kenya, received UK£1,500 for his project entitled 'Habitat mapping and participative research for the conservation of the globally threatened Blue Swallow in the unprotected Busia Grasslands Important Bird Area'. The overall goal is to assist local policy makers to identify and protect crucial wildlife habitats outside legally protected areas, with special emphasis on moist grasslands. The project will involve local people to conduct mapping and determine the current extent of key and potential Blue Swallow *Hirundo atrocaerulea* wintering sites; determine the characteristics of drainage lines used by Blue Swallows for foraging; create local awareness of the species and its locally threatened habitats; and propose a locally acceptable and sustainable monitoring programme. Paul Bristow will kindly provide UK£500 towards this project.

Why are Martial Eagles declining in South Africa?

Tasso Leventis kindly agreed to support a UK£1,500 proposal from Arjun Amar, of the Percy FitzPatrick Institute of African Ornithology, to investigate the cause of the decline of the Near Threatened Martial Eagle *Polemaetus bellicosus* in Kruger National Park (the species' main stronghold in South Africa). The project will test two main hypotheses: (i) that the constraining factors on this population lie within the protected area, with productivity or survival of breeding adults being too low for population stability or growth, or

Southern Ground Hornbill / Bucorve du Sud *Bucorvus leadbeateri* (Dave Richards) alternatively that nesting opportunities have declined within the park; and (ii) that the problem lies outside the protected area, with the survival of dispersing subadults being insufficient to provide adequate recruitment. The award will be used to cover some of the costs incurred in acquiring and attaching state-of-the-art GPS-GSM and PTT tags to subadults.

Tracking the Plain Swift to its wintering areas

Eduardo García-del-Rey has received UK£1,500 for a study of the migratory movements of the Macaronesian endemic Plain Swift *Apus unicolor* in Tenerife, Canary Islands, through the use of geolocators. Birds will be trapped and re-trapped at established nesting sites in Tenerife by licensed UK and Canaries ringers under permits issued by the Canarian authorities. The key objective is to identify the wintering grounds of this species, which are unknown.

Capacity building in Nigeria

A resubmitted project from Oluwabunmi Jegede of the Nigerian Conservation Foundation received UK£1,297.06 to build the capacity of volunteers to promote bird conservation in Nigeria. A training workshop, to introduce volunteers to the concept of birding and how data can be collected during leisure time, will be held to precede the inauguration of the Ibadan Bird Club (IBC), which is modelled on the existing Lekki Bird Club in Lagos. It will receive local support from the International Institute for Tropical Agriculture (IITA) and the Department of Wildlife Management in the University of Ibadan. Olle Holst of Avifauna kindly agreed to fully sponsor this project.

The avifauna of Karima Forest, Kenya

Edwin Gichohi Njuguna from the Ornithology Section of the National Museums of Kenya was awarded UK£1,047.61 to conduct an avifaunal survey of Karima Forest in central Kenya. The 265-acre sacred forest lies between the Aberdare range and Mount Kenya, on a tapering dome-shaped volcano c.2,000 m above sea level. The specific objectives are to: assess bird species diversity and composition, and their conservation status; identify the biome indicator species relating them to those mainly found in the eastern Afromontane hotspots of Mount Kenya and the Aberdares; determine the presence or absence of bird species of conservation importance (endemics, IUCN Red Data List species, regionally threatened species etc.); and identify threats facing the forest and its birds. Paul Lascelles kindly agreed to fully sponsor this project.

Saving the Northern Bald Ibis in Morocco

Olle Holst of Avifauna also kindly agreed to sponsor an award of UK£1,500 to Mohamed Znari of Cadi Ayyad University / GREPOM, Marrakech. The specific objectives of his project entitled 'Non-invasive bio-monitoring and conservation of the Critically Endangered Northern Bald Ibis, *Geronticus eremita* in south-west Morocco: an ecological research and conservation education programme' are: to use genetic analysis on feathers and or faeces collected non-invasively to estimate the population size, the annual survival rate, the origin of native birds (philopatry), patterns of exchange between the colonies, and post-breeding dispersal; to investigate population trends and viability; to evaluate dietary habits in relation to food availability and time-activity budgets in terms of energy expenditure at the colony level; to establish a geo-referenced database of habitat use; and to conduct conservation educational activities for the local community.

Reports received

Malaŵi environmental education

In 2011 the Zomba branch of the Wildlife and Environmental Society of Malaŵi received an award of UK£1,496 to undertake environmental education with school wildlife clubs in and around the Ramsar site of Lake Chilwa. A Wildlife Club Coordinator, Johnson Namauti, was employed for nine months in late 2011 / early 2012 to work in Phalombe District. Unfortunately, Lake Chilwa largely dried up during this period (for the first time since 1994) which meant that most waterbirds departed elsewhere, but in total 72 club leaders were trained in the use of an excellent bird activity book (available as a free download from the ABC website), providing them with practical material to make their club activities better focused on birds and more attractive to their members. Each club has *c.*20 members, so approximately 1,400 children were involved in these activities. To encourage their interest, a poster and essay competition was held, which received more than 300 entries. The clubs also planted *c.*8,000 trees in the schools and surrounding villages.

Community environmental awareness at Lake Ol' Bolossat

George Ndung'u Muigai of Nyahururu Bird Club (NBC) received UK£860, generously provided by Olle Holst of Avifauna, to increase community awareness of the threats to this Important Bird Area, one of 61 in Kenya. Lake Ol' Bolossat is the only natural lake in Kenya's Central Province, and the main source of the Uaso Narok River, which flows through key national conservation areas, among them Samburu National Park and Buffalo Springs. It is an important site for migrant waterbirds, with 17 species listed as priorities for conservation under UNEP's Africa

Eurasian Waterbird Agreement (AEWA), but faces several anthropogenic threats, such as quarrying, uncontrolled grazing, poaching, fire, uncontrolled water abstraction, urban development, and poor soil and water management. Together with other members of NBC, George visited target groups and individuals, and engaged them via lectures, questionnaires, dialogue, demonstrations and the donation of environment education materials. George, a local resident, wrote a book in Kikuyu entitled *Nyoni na Andu* (*Birds and People*) and distributed 200 copies to residents and schools around the lake. The groups engaged included herders, fishermen, papyrus harvesters, irrigation farmers, quarry workers, children at four primary schools within 2 km of the lake, landowners within 500 m of the main lake, and two nearby youth groups that have the conservation of Lake Ol' Bolossat as one of their objectives.

Survey of Blue Swallows in Ruma National Park, Kenya

Blue Swallow *Hirundo atrocaerulea* is a rare intra-African migrant classed as Vulnerable by IUCN. It breeds in highland grasslands and winters in mid-altitude moist grasslands and swamps, often near lakes. In May 2012, Maurice Ogoma of the National Museums of Kenya was awarded UK£1,500—kindly co-sponsored by Paul Bristow and Olle Holst of Avifauna—to survey the species and its threatened habitats in Ruma National Park, one of the two most important wintering sites in Kenya, as a guide for future scientific and management activities. The research team undertook two days of intensive field surveys, using a vehicle along two 12-km transects. A total of 87 Blue Swallows was counted. Groups were encountered each day at the same two localities, 1 km apart, so a fair assessment of the population is the mean of the two days' counts, or 43 birds. Both localities comprised grassland with scattered *Acacia drepanolobium* and *Balanites aegyptica.* The Blue Swallows were mostly subadults, but least three adults were also present and an immature was also observed. Key challenges facing Ruma and its Blue Swallow population are: (i) the lack of involvement by the local community in conservation and management activities; (ii) poor park accessibility due to the poorly developed road network; (iii) lack of local community sensitivity to conservation issues; and (iv) poor local and political governance and resource allocation to the park.

Dr Chris Magin, ABC Conservation Officer on behalf of the ABC Conservation Committee

The ABC website (http://www.africanbirdclub.org/conservation-fund-past-projects) shows the full list of conservation projects and awards made since the inception of the programme over a decade ago. **A remarkable total in excess of UK£150,000 has been donated during this period.** You can also view many of the final project reports—including full versions of those summarised above—by following the links on the webpage.

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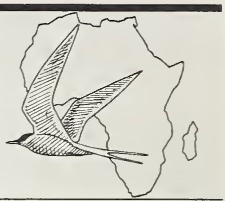


Compiled by Ron Demey, Guy M. Kirwan and Peter Lack

General

BirdLife taxonomic and Red List review

BirdLife International is collaborating with Lynx Edicions (publishers of the *Handbook of the Birds of the World*) on the production of a new checklist, which will form the basis for BirdLife's assessments of the status of the world's birds. In preparation for this, the criteria described by Tobias *et al.* (2010) for defining species limits are being applied to potential splits and lumps, initially for non-passerines, with the result that the 2013 Red List will include numerous taxonomic changes. In addition to forum topics on currently recognised species, a large number of forum topics have been posted to solicit comments on the status of newly defined species thought to qualify as globally threatened or Near Threatened, as well as presumed Least Concern species resulting from the same taxonomic changes. BirdLife is very grateful for comments on suggested categorisation, both in support of proposals as well as with corrections and additional information. Some of the topics live at the time of writing include the following: Mauritius Fody *Foudia rubra*: downlist to Vulnerable; Rodrigues Warbler *Acrocephalus rodericanus* and Rodrigues Fody *Foudia flavicans*: downlist both to Near Threatened; Fea's Petrel *Pterodroma feae* is being split: list *P. deserta* as Vulnerable and *P. feae* as Near Threatened; Cuckoo Roller *Leptosomus discolor* is being split: list both *L. gracilis* and *L. intermedius* as Critically Endangered; Mountain Buzzard *Buteo oreophilus* is being split: list *B. oreophilus* as Near Threatened; Beaudouin's Snake Eagle *Circaetus beaudouini*: uplist to Endangered; Long-billed Tailorbird *Artisornis moreaui*: downlist to Endangered; Cape Cormorant *Phalacrocorax capensis*: uplist to Endangered; Angola Cave Chat *Xenocopsychus ansorgei*: downlist to Least Concern; Bedford's Paradise Flycatcher *Terpsiphone bedfordi*: downlist to Least Concern; White-tailed Warbler *Poliolais lopezi*: downlist to Least Concern; Grey-headed Greenbul *Phyllastrephus poliocephalus*: downlist to Least Concern; Dwarf Honeyguide *Indicator pumilio*: downlist to Least Concern; Verreaux's Coua *Coua verreauxi*: downlist to Least Concern; Cameroon Montane Greenbul *Andropadus montanus*: downlist to Least Concern; Madagascar Green Pigeon *Treron australis* is being split: list *T. griveaudi* as Endangered; Ostrich *Struthio camelus* is being split: list *S. molybdophanes* as Near Threatened or Vulnerable; Houbara Bustard *Chlamydotis undulata* is being split: list *C. macqueenii* as Vulnerable and *C. undulata* as Least Concern; Moorland Francolin *Francolinus psilolaemus* is being split: list *F. elgonensis* as Near Threatened; Black Bustard *Eupodotis afra*: eligible for uplisting; Mauritius Kestrel *Falco punctatus*: uplist to Endangered; Kori Bustard *Ardeotis kori*: uplist to Near Threatened; Red-collared Mountain Babbler *Kupeornis rufocinctus*: downlist to Least Concern; Malindi Pipit *Anthus melindae*: downlist to Least Concern; Cinderella Waxbill *Estrilda thomensis*: downlist to Least Concern; Martial Eagle *Polemaetus bellicosus*: uplist to Vulnerable or Endangered; Pulitzer's Longbill *Macrosphenus pulitzeri*: downlist to Vulnerable or Near Threatened; São Tomé Short-tail *Amaurocichla bocagei*: downlist to Near Threatened or Least Concern; Seychelles White-eye *Zosterops modestus*: downlist to Vulnerable; Crossley's Ground Thrush *Zoothera crossleyi*: downlist to Least Concern; Papyrus Gonolek *Laniarius mufumbiri*: downlist to Least Concern; Hottentot Buttonquail *Turnix hottentottus* is being split: list *T. hottentottus* as Endangered; Shelley's Francolin *Francolinus shelleyi* is being split: list *F. whytei* as Near Threatened; Red-necked Falcon *Falco chicquera* is being split: list *F. chicquera* as Near Threatened; White-crested Hornbill *Tropicranus albocristatus* is being split: list *T. albocristatus* as Near Threatened; Dwarf Black Hornill *Tockus hartlaubi* is being split: list *T. hartlaubi* as Near Threatened; Forest Wood-hoopoe *Phoeniculus castaneiceps* is being split: list *P. castaneiceps* as Near Threatened; Piping Hornbill *Bycanistes fistulator* is being split: list *B. fistulator* as Near Threatened; Tsingy Wood Rail *Canirallus beankaensis*: newly recognised and Near Threatened; Arabian Bustard *Ardeotis arabs* and Nubian Bustard *Neotis nuba*: request for information; Taita Falcon *Falco fasciinucha*: request for information.

Source: www.birdlife.org/globally-threatened-bird-forums/category/threatened-african-birds/

Northern Bald Ibis news

The first meeting of the Africa Eurasian Waterbird Agreement (AEWA) Northern Bald Ibis International Working Group (which was convened two years ago) took place on 19–22 November 2012 in Jazan, Saudi Arabia, and was hosted and sponsored by the Saudi Wildlife Authority and Jazan University, with further support from BirdLife International and the Royal Society for the Protection of Birds (RSPB). The working group's aim is to facilitate and coordinate the implementation of the AEWA International Single Species Action Plan (SSAP) for the species, which was originally approved in 2005. Coordination is provided by BirdLife

Northern Bald Ibis / Ibis chauve *Geronticus eremita* (Adam Riley / Rockjumper Birding Tours)

International under a memorandum with the UNEP/AEWA Secretariat, with assistant coordinators for the western population from SEO/BirdLife (Spain) and the eastern population from the BirdLife Middle East Secretariat.

Northern Bald Ibis *Geronticus eremita* is a Critically Endangered species with two small wild populations and a tiny breeding range. The eastern population, breeding in Syria, numbered just four birds in 2012 and only one returned in spring 2013, while the western population estimated at *c.*500 birds of which *c.*110 are nesting pairs, breeds in Morocco. There is also a semi-wild population of *c.*150 birds at Birecik (Turkey) and experimental reintroduction trials have been undertaken in Spain and Austria / Germany / Italy.

The meeting was attended by 23 participants from four of the seven member range states (Morocco, Saudi Arabia, Turkey and Yemen), two of the observer range states (Algeria and Spain) and observers from the International Group on the Northern Bald Ibis (IAGNBI), the BirdLife coordination unit and the UNEP/AEWA Secretariat. The meeting had ambitious objectives all of which were achieved. The major outcome was the initiated revision of the SSAP, which was streamlined and the newly formulated actions were further prioritised by each member and observer range state at national level, followed by more detailed identification of activities to be implemented in the next three years before the second meeting planned for 2015. The draft of the revised SSAP will be submitted to the Ninth Meeting of the AEWA Standing Committee in late 2013 for approval, before sign off by the Sixth Meeting of the Parties to AEWA in 2015. The meeting further decided to establish a list of critical sites for the species, which will be a rolling list identified and maintained by each range state.

On the last day, the hosts organised a field visit to extreme south-west Saudi Arabia around Jazan Wadi Dam where ibises from the eastern population stop off during their migration to the wintering grounds in Ethiopia.

Source: http://www.unep-aewa.org/news/news_elements/2012/nbi_meeting_saudi_arabia.htm

Parrot breeds in winter dry season because of insect diet

Meyer's (Brown) Parrot *Poicephalus meyeri* is more widespread than any other African parrot, with six subspecies across its range. The species is unusual in that it breeds in the winter dry season when few other cavity-nesting species do so. It transpires that this is possible because both nesting females and their chicks are fed almost exclusively on regurgitates of four cryptic arthropod larvae, which occur in fruits and pods and which are commonest at this season. The authors of the study have found that populations of this parrot in Zambia and Tanzania also track the abundance of the same or similar arthropod larvae, and suggest that related parrot species may also do so. Clearly, deforestation and other poor land management practices could affect this species detrimentally.

Source: J. Ornithol. *154, pp. 849–861*

Uncertain future for African elephants

Populations of elephants in Africa continue to be under severe threat as the illegal trade in ivory grows, with double the numbers killed and triple the amounts of ivory seized over the last decade. According to a new report entitled *Elephants in the Dust – The African Elephant Crisis*, increasing poaching levels, as well as habitat loss are threatening the survival of elephant populations in Central Africa as well as previously secure populations in West, southern and eastern Africa. The report—produced by the UN Environment Programme (UNEP), Convention on International Trade in Endangered Species (CITES), International Union for Conservation of Nature (IUCN) and Wildlife Trade Monitoring Network (TRAFFIC)—states that systematic monitoring of large-scale seizures of ivory destined for Asia is indicative of the involvement of criminal networks, which are increasingly active and entrenched in the trafficking of ivory between Africa and Asia.

At sites monitored by the CITES-led Monitoring Illegal Killing of

Meyer's (Brown) Parrot / Perroquet de Meyer *Poicephalus meyeri* (Robert van Zalinge)

African Savanna Elephants / Éléphants de savane *Loxodonta africana* (Munir Virani)

Elephants (MIKE) programme alone, which hold *c*.40% of the total elephant population in Africa, an estimated 17,000 elephants were illegally killed in 2011. Initial data from 2012 show that the situation did not improve, and overall figures may be much higher. These threats compound the most important long-term threat to the species' survival—increasing loss of habitat as a result of rapid human population growth and large-scale land conversion for agriculture, which provides for international markets.

The report recommends critical actions, including improved law enforcement across the entire illegal ivory supply chain and strengthened national legislative frameworks. Training of enforcement officers in the use of tracking, intelligence networks and innovative techniques, such as forensic analysis, is urgently needed. Better international collaboration across range states, transit countries and consumer markets—through the UN Office for Drugs and Crime, CITES, INTERPOL, the World Customs Organization, the World Bank and other international actors—is needed in order to enhance law enforcement, from the field to the judiciary, to deter criminal activities and combat illegal trade. "Organised criminal networks are cashing in on the elephant poaching crisis, trafficking ivory in unprecedented volumes and operating with relative impunity and with little fear of prosecution," said Tom Milliken, TRAFFIC's ivory trade expert.

Some of the other key findings from the report include: large-scale seizures of ivory (consignments of > 800 kg) destined for Asia have more than doubled since 2009 and reached an all-time high in 2011; large movements of ivory that comprise the tusks of hundreds of elephants in a single shipment are indicative of the increasingly active grip of highly organized criminal networks on Africa's illicit ivory trade; these criminal networks operate with relative impunity as there is almost no evidence of successful arrests, prosecutions or convictions; globally, illegal ivory trade activity has more than doubled since 2007, and is now over three times larger than it was in 1998; poaching is spreading primarily as a result of weak governance and rising demand for illegal ivory in the rapidly growing economies of Asia, particularly China; and the high levels of poaching are, in some cases, facilitated by conflicts that, through lawlessness and ensuing abundance of small arms, provide optimal conditions for the illegal killing of elephants.

Source: IUCN Species e-bulletin *February 2013*

North Africa

Distribution and taxonomy of Streaked Scrub Warbler in Morocco

Two subspecies of Streaked Scrub Warbler *Scotocerca inquieta* are traditionally considered to occur in Morocco, *S. i. saharae* in the south-east of the country and *S. i. theresae* in the south-west. However, recent research by Patrick Bergier *et al.* has shown that the two subspecies are not disjunct, as previously thought, and that the species does not occur further south in Western Sahara or Mauritania. The authors of the paper suggest that *saharae* might be best considered a synonym of *theresae*, especially given the lack of any vocal differentiation between them. Further east, however, there are obvious differences between the vocalizations of North African populations and those of the Middle East (and possibly Central Asia).

Source: Dutch Birding *35, pp. 107–121*

Hybridising buzzards

Natural hybridisation in Old World *Buteo* is uncommon despite being an intricate and recent radiation of genetically poorly differentiated raptors. The first case of successful hybridisation between the North African subspecies of Long-legged Buzzard *B. rufinus cirtensis* and Common Buzzard *B. b. buteo* in southern Spain has been reported recently. The hybrid offspring showed mixed characters indicating that hybridisation could explain the increasing presence of phenotypically odd reddish buzzards in southern Spain and northern Morocco.

Source: Ostrich *84, pp. 41–45*

Mass slaughter of migrants on Egypt's coast

Bavarian Broadcasting recently documented that millions of migratory birds are still being trapped each year along Egypt's Mediterranean coast. Approximately 700 km of nets, stretching from the Libyan border across almost the entire coastline of Egypt to the Sinai, are set to catch birds, mainly during autumn migration. The birds are then offered as a delicacy in markets and restaurants across the country. The numbers of birds caught this way can only be estimated, but it is suspected that tens of millions are slaughtered each year. Although the existence of this phenomenon has long been known, the scale of it, which obviously seriously threatens European bird populations, was previously unknown. This form of bird trapping is mostly illegal in Egypt; there are requirements for minimum distances between nets and maximum heights, but these are largely ignored. Egypt has also signed international agreements on the protection of birds, but the rules are not enforced. NABU (Nature and Biodiversity Conservation Union), one of the oldest and largest environment associations in Germany) is assisting its partner organisation Nature Conservation Egypt to campaign locally, through regular monitoring of bird trapping and to develop specific projects to prevent it.

Source: http://www.wildlifeextra.com/go/news/egypt-bird-trapping.html#cr

Atlantic Ocean islands

North American Osprey in the Azores...

The author of a recent paper discussing the ageing, sexing

and identification of Osprey *Pandion h. haliaetus* in Europe versus *P. h. carolinensis* in North America also located two Western Palearctic records of the second-named subspecies, both of them photographed. The first was in Iceland in September 2008 (a young male) and the second on Flores, in the Azores, between mid-October and early November 2011.
Source: Dutch Birding *35, pp. 69–87*

...and North American Hawk Owl in the Canaries

Full details of the second record of the North American race, *caparoch*, of Hawk Owl *Surnia ulula* in the Western Palearctic, a specimen held in Leiden, the Netherlands, and captured alive on board a ship off La Palma, in the Canary Islands, in October 1924, have only recently been published, although the specimen was already mentioned in the relevant volume of *Birds of the Western Palearctic* (1985). The ship was en route to Holland, where the bird was taken to Rotterdam Zoo; it died in November of the same year.
Source: Dutch Birding *35, pp. 1–6*

An aberrant buzzard on the Cape Verdes

In November 2012, Magnus Robb and René Pop observed and photographed what was presumably a leucistic Common Buzzard *Buteo buteo bannermani* on Santo Antão, in the Cape Verde Islands. White mutations in this species appear to be very rare, or at least poorly reported.
Source: Zool. Caboverdiana *3, pp. 87–90*

End of the line for Magnificent Frigatebird...?

The Cape Verdean population of Magnificent Frigatebird *Fregata magnificens* has probably never been large and during recent decades it has declined rapidly. Just 10–12 pairs in the mid 1960s had fallen to a mere five pairs by the late 1980s / early 1990s. By 2012 just a single male and female were apparently present in the archipelago, making the discovery of an adult female dead on a beach on the island of Boavista in mid September last year potentially the penultimate act in the species' extinction as a breeding bird in the Western Palearctic.
Source: Zool. Caboverdiana *3, pp. 82–86*

Iago Sparrows hitch a ride to Europe

Four Iago Sparrows *Passer iagoensis* stayed on board *MV Plancius* all the way from the Cape Verde Islands to the Netherlands, where they arrived at Hansweert, Zeeland, on 18 May; the original group that came aboard on 6 May off Raso numbered *c.*11 birds, but several left the ship during stops at the Desertas and Madeira.
Source: Dutch Birding *35, p. 207*

West and Central Africa

Aquatic Warbler migration route found

The globally threatened Aquatic Warbler *Acrocephalus paludicola* breeds in Eastern Europe and winters in parts of West Africa. Using geolocators Volker Salewski and his colleagues found that birds used stopovers in south-west France and Spain on their way south in autumn. Also, one bird spent some of the winter much further south than was previously thought to be usual for the species. For this Endangered species, it is clear that sites used for stopovers and some in the African wintering grounds must be protected if the species is to survive.
Source: J. Ornithol. *154, pp. 549–552*

Palearctic harriers follow a regular pattern in their movements

Montagu's Harrier / Busard cendré *Circus pygargus* (Werner Suter)

Most Palearctic species wintering in Africa do not remain in one place, but spend a period in two or more areas over the course of the winter. Traditionally, these have been thought to be more or less random wanderings, but a new study of 30 satellite-tagged Montagu's Harriers *Circus pygargus* wintering in the West African Sahel has found that this species follows regular patterns and that these are likely to be repeated each year. On average, each bird used four areas separated by *c.*200 km over the winter and each area was similar in size to the species' breeding home range. They preferred mosaics of grass and crops with their main prey being grasshoppers. Movements followed the patterns of abundance of grasshoppers and normally followed a few weeks behind the rain belt as it moved south, i.e. coinciding with the highest availability of grasshoppers in each area. The authors suggest that this itinerancy may be the rule rather than the exception among Palearctic insectivores wintering in Africa.
Source: J. Anim. Ecol. *82, pp. 107–120*

Two species new to Mauritania reported

Two additions to the country's list, Long-billed Pipit *Anthus similis* and Lesser Blue-eared Starling *Lamprotornis chloropterus*, were observed by Max Schulz in the Guidimaka region, in the far south of Mauritania, in 2007 and 2005–07, respectively. Two other species, for which there were no previous detailed records, are documented in the same note: African Golden Oriole *Oriolus auratus* and Purple Glossy Starling *L. purpureus*, which were also observed in Guidimaka.
Source: Malimbus *35, pp. 67–70*

Raptors on West African floodplains

Monthly transects in four major habitat types (natural and man-made) across the Waza-Logone floodplain, in the Lake Chad Basin

Grasshopper Buzzard / Busautour des sauterelles *Butastur rufipennis* (Ian Fulton)

of Cameroon, counted >2,500 individuals of 36 raptor species, with Black Kite *Milvus migrans* contributing 42% overall. Numbers and diversity of Palearctic species were not affected by land use, but those of Afrotropical species were higher on flooded grasslands compared to cultivated areas and dry grasslands. Palearctic raptors were attracted especially to post-harvest rice fields but, excluding Black Kite and Hooded Vulture *Necrosyrtes monachus*, numbers of Afrotropical species were reduced in such habitat. Further changes to land use are expected, but more research is needed to determine their overall effects, and especially on the effects of pesticide use. This work formed part of the doctoral thesis (see http://hdl.handle.net/1887/20446) of Ralph Buij, whose studies also found that three species of Palearctic harrier overlap somewhat in ecology but segregate by habitat (Pallid *Circus macrourus* in dry grassland) or by body size of prey (Marsh *C. aeruginosus* takes larger prey than Montagu's *C. pygargus*). Pallid also takes Red-billed Queleas *Quelea quelea*, unlike the others. Buij also undertook detailed studies of three Afrotropical species. For two species—Grasshopper Buzzard *Butastur rufipennis* and African Swallow-tailed Kite *Chelictinia riocourii*—he uncovered many new data, but Fox Kestrel *Falco alopex* remains something of an enigma. Some data from Buij's thesis are already published (e.g. the species richness and habitat data in *Bird Conservation International*, and work on Grasshopper Buzzard in *Ibis*—see below) and hopefully more will appear soon.

Source: Bird Conserv. Intern. *23, pp. 199–213;* Ardea *101, pp. 81–83*

Grasshopper Buzzards affected by land-use changes

The populations of most raptors are being severely affected by changes in land use and habitat alteration. A study of Grasshopper Buzzards *Butastur rufipennis* found that, among other things, there has been a switch in main prey items for chicks, from small mammals and grasshoppers in more natural habitats, to predominantly lizards in modified habitats, and that nestlings attain a higher mass in natural habitats. Both these facts suggest that body condition at fledging and hence survival are likely to be affected by the changes. However, there was no difference in calorific content in the two habitats. The authors of the study predict that lower rainfall and habitat change will have overall negative effects on this species' breeding success.

Source: Ibis *155, pp. 89–101*

Birds of the Mount Hombori region, Mali, surveyed

In the latest issue of *Malimbus*, Samuel Ehrenbold presents the results of a two-month survey conducted in October–November 2009 in the Mount Hombori region, at the border between the Sahara desert and the Sahel. Due to the high cliffs surrounding its summit plateau, the almost inaccessible tableland of *c.*2 km^2 of Mount Hombori represents one of the few remaining unspoiled zones in the Sahel. Some 124 bird species were recorded, of which six are of conservation concern: Egyptian Vulture *Neophron percnopterus*, White-backed Vulture *Gyps africanus*, Rüppell's Vulture *G. rueppelli*, Hooded Vulture *Necrosyrtes monachus* (all four classified as Endangered), Beaudouin's Snake Eagle *Circaetus beaudouini* (Vulnerable) and European Roller *Coracias garrulus* (Near Threatened).

Source: Malimbus *35, pp. 11–26*

More new bird species for Burkina Faso documented

Also in *Malimbus*, Michiel van den Bergh describes several notable bird records for the country, made during December 2011–March 2012, including the first Pectoral Sandpiper *Calidris melanotos* for Burkina, and the first fully documented records of Eurasian Bittern *Botaurus stellaris*, Quail-plover *Ortyxelos meiffreni* and Little Crake *Porzana parva*. The Blackstarts *Cercomela melanura*, first reported in August 2011 (see *Bull. ABC* 19: 202–203), were still present in the same area in January–February 2012. An Iberian Chiffchaff *Phylloscopus ibericus* was positively identified based on song and plumage characters in Ouagadougou Forest Reserve.

Source: Malimbus *35, pp. 57–65*

Grauer's Gorilla caught in the crossfire

The International Union for Conservation of Nature (IUCN) and other leading conservation organisations have joined together to fight for the survival of the Endangered Grauer's (Eastern Lowland) Gorilla *Gorilla beringei graueri*, which occurs only in montane forests of eastern Congo, and is the world's largest primate. With their entire range consumed in conflict since 1996, important populations of Grauer's Gorilla and Chimpanzee *Pan troglodytes schweinfurthii* have gone largely unmonitored.

The first-ever surveys of Grauer's Gorilla were undertaken in the late 1950s by George Schaller and John Emlen, and subsequent surveys by the Wildlife Conservation Society (WCS) did not take place until 1994, by which time the gorillas were highly threatened, primarily from hunting and human settlement, and several important subpopulations had been lost, although *c.*17,000 gorillas remained. "In the 1990s, carrying out surveys in this region was challenging, but we did not have to contend with the insecurity that followed," said Dr Liz Williamson of the IUCN SSC Primate Specialist Group. "Comprehensive follow-up surveys have been impossible until now." "The Wildlife Conservation Society, Fauna & Flora International and the Jane Goodall Institute have designed a new scientific approach to survey this ape across its 80,000 km^2 range with statistical help from the Max Planck Institute of Evolutionary Anthropology," said Dr Andrew Plumptre of WCS.

Since 2003, several attempts have been made to survey parts of the gorilla's range. While results from these preliminary surveys found that gorillas still exist at several key sites, they also documented what appears to be a severe decline of 50–80% since the 1990s. "Today, the remaining … populations are small and localised and occur in regions of intense illegal mining activity and insecurity," said Stuart Nixon of Fauna & Flora International. "Until we can complete the much-needed surveys, our best guess is that between 2,000 and 10,000 gorillas remain in 14 isolated populations. Without a dedicated effort, the next ten years will be marked by continuing local extinctions of this forgotten gorilla."

Source: IUCN Species ebulletin *March 2013*

New records from the Soyo area, north-west Angola

C. Stavrou and Michael Mills report observations of 107 bird species, made in November 2009–May 2010, at Soyo, an ornithologically poorly known area of extreme north-west Angola on the southern bank of the Congo River. Thirty-six species were new to the area, bringing the total known to 156. Previously, no observations had been made at Soyo during the wet season, when many weavers (Ploceidae) are in breeding plumage, making this report of particular interest.

Source: Malimbus *35, pp. 27–36*

East Africa

Clarke's Weaver breeds in Dakatcha Woodland Important Bird Area

The breeding grounds of Clarke's Weaver *Ploceus golandi* have been a mystery for many years. David Ngala and Don Turner observed adults feeding flying young in Dakatcha in 1994, but the species' nest had never been found. On 6 January 2013 a team from *Nature*Kenya found a flock of Clarke's Weavers in a seasonal wetland of grass and sedge, and the weavers were present at the same wetland from late January to early February and again in early March. Then on 22 March the area was visited again, but the sedges had been cut for thatch and the team could collect only a few empty nests on the ground. Next day, however, two different flocks of Clarke's Weavers were found at additional sites and at one of them, where several hundred birds were present, the observers found individuals nest building. A few days later, it became apparent that perhaps as many as 500 nests were concentrated in a small area of sedges, with the adults visiting the surrounding woodland to feed, and apparently undisturbed by the activities of local people collecting water at the breeding site. Dakatcha Woodland Conservation Group, with support from *Nature*Kenya, is taking steps to protect this breeding site by engaging local people and politicians.

Source: Fleur Ng'weno in litt. *March 2013*

Habitat diversity in and around farmland favours birds

Most ornithological work in Africa has generally been in natural or semi-natural habitats and areas. In contrast, much of that in temperate regions of the world has of necessity been in man-modified habitats. Hence, the study by P. K. Ndang'ang'a *et al.* in highland farmland in Kenya is to be welcomed. They found that crop diversity and overall habitat heterogeneity in the surrounding areas had significantly positive effects on species richness (as in temperate areas) and that cereal cover had a predominantly negative effect on diversity and abundance, especially on avian granivores. The latter were favoured by mixed vegetation in the surrounding area. This can have problems as Speckled Mousebird *Colius striatus* favours more woody and shrub vegetation in the surrounds, and this species is viewed as a pest especially in orchards.

Source: Ostrich *84, pp. 33–39*

Scopus

Volume 32 of *Scopus*, the peer-reviewed journal of ornithology in eastern Africa published by the Bird Committee of the East Africa Natural History Society (*Nature*Kenya), has now been published as a .pdf only. This issue includes papers describing the first records for Tanzania of Slender-billed Gull *Chroicocephalus genei* and Pectoral Sandpiper *Calidris melanotos*, as well as the first Swallow-tailed Bee-eater *Merops hirundineus* for Kenya. The *Nature*Kenya website has recently been updated (www.naturekenya.org) and it is possible to pay for *Scopus* by credit card online. David Pearson and Darcy Ogada have taken over from Graeme Backhurst as co-editors of *Scopus* from the next issue. Submissions can be sent to either, or preferably, both of them: djpearson@dsl.pipex.com and darcyogada@yahoo.com. Back issues of *Scopus* will be available online and some issues are already available at http://biodiversitylibrary.org/bibliography/64405. Issues of *Kenya Birds* (another *Nature*Kenya publication that is no longer produced) will also be available at http://biodiversitylibrary.org/bibliography/64392.

Source: D. Ogada in litt. *June 2013*

Southern Africa

The first record of Oriental Cuckoo in Africa

Recent detective work by Clive Mann has resulted in a new species for the African list. Mann found that a hepatic female cuckoo

(*Cuculus*) specimen held at the Natural History Museum, Tring, and collected in modern-day Zambia at the confluence of the Zambezi and Kafue Rivers, in late December 1897, can be positively identified as the continent's first Oriental Cuckoo *C. saturatus optatus*. This subspecies breeds from European Russia east across Siberia to the Pacific coast, and migrates to South-East Asia, the Sundas, Philippines and Australia in winter. Despite much recorded vagrancy, the closest previous records to this one were both in Israel.

Source: Bull. Br. Ornithol. Club *133, pp. 161–164*

Common House Martins breed in South Africa

In 2012, two pairs of Common House Martins *Delichon urbicum* successfully bred in South Africa, in the Garden Route National Park, Western Cape. The nests were constructed on the office building of Scientific Services at Rondevlei, on the remains of an old Greater Striped Swallow *Cecropis cuculata* nest. Three chicks fledged from each nest, with the first chick leaving nest one on 10 October and the first of nest two on about 12 November. A few breeding attempts of this Palearctic migrant have been reported previously from southern Africa: at least five in South Africa, with the first in Cape Town in 1892, and two in Namibia, with the most recent in Windhoek in 1985. Unfortunately, most records lack details, but for the two most recent South African records, in 1967 and 1969, there is no evidence that the attempts progressed beyond the nest-building stage (Hockey *et al.* 2005. *Roberts—Birds of Southern Africa*).

Source: African Birdlife *1(3), pp. 58–59*

Wind farm threat in Lesotho

BirdLife South Africa and BirdLife International are concerned that a proposed wind farm at Letseng in Lesotho could severely impact already declining populations of Cape Vultures *Gyps coprotheres* and Bearded Vultures *Gypaetus barbatus*. The environmental impact assessment (EIA) for a proposal to erect 42 turbines (each with a capacity of 850 kW) on the north-eastern escarpment of the Drakensberg, shows that, even with mitigation, the anticipated impacts of the project on the local avifauna will be highly negative, rendering the project unsustainable.

Cape Vulture / Vautour chassefiente *Gyps coprotheres* (Per Holmen)

While wind energy is fairly new to southern Africa, poorly located wind turbines elsewhere in the world have had significant impacts on bird populations. "The considered location of wind farms is the key to ensuring that impacts on birds are kept to a minimum", said Samantha Ralston, for BirdLife South Africa. Among other things, turbines should be kept well away from areas frequently used by collision-prone birds such as large-bodied raptors. Vultures appear to be particularly prone to colliding with the turbine blades. High collision rates have been observed in Griffon Vultures *Gyps fulvus* at wind farms in Europe. The proposed Letseng wind farm is located in habitat critical for Lammergeier and Cape Vulture, both of which threatened species. A further decline in Lesotho would severely impact the viability and survival rates of vultures in South Africa. Using population models, scientists have demonstrated that even a small increase in adult mortality could cause the rapid decline and even local extinction of these long-lived, slow-breeding birds.

Bearded Vulture / Gypaète barbu *Gypaetus barbatus* (Jon Hornbuckle)

Dr Julius Arinaitwe, BirdLife International's Regional Director for Africa remarked that development is vital, but must progress in an environmentally sensitive manner. "Development is underpinned by healthy ecosystems and the biodiversity therein. The choices we make now must not negatively affect Africa's ability to develop in future", he said. BirdLife is calling on the development company in the case to voluntarily withdraw the EIA application. BirdLife South Africa is also encouraging the public and partners to comment on the EIA report.

Source: BirdLife International press release, January 2013

South Atlantic islands

Gough Island seabirds affected by mice

Introduced House Mice *Mus musculus* continue to have an apparently major impact on the breeding success of seabirds on the UK Overseas Territory of Gough Island. Burrow-nesting species, especially the smaller ones and those breeding in winter, are being especially hard hit, with high chick mortality due mainly to predation by the mice, causing declines in a range of species. Indeed, the populations of several of the species for which the island is so important are becoming seriously threatened.

Source: Bird Conserv. Intern. *23, pp. 113–124*

St. Helena Plover hit by introduced predators

Productivity of the St. Helena Plover (Wirebird) *Charadrius sanctaehelenae* is also being hit by introduced predators, especially domestic cats *Felis catus*, although lesser problems are caused by two species of rat *Rattus* spp. and Common Mynas *Acridotheres tristis*, all of which have been introduced in the last 500 years or so. Nest survival was correlated closely with the density of cats in particular.

Source: Bird Conserv. Intern. *23, pp. 125–135*

Taxonomic proposals

New subfamily of gamebirds

Given the findings of a recent paper published in *Ibis* that Stone Partridge *Ptilopachus petrosus* and Nahan's Francolin *Francolinus nahani* are each other's closest relatives, and more closely related to New World quails than other African taxa (see *Bull. ABC* 20: 19), Rauri Bowie and his colleagues have erected a new subfamily, the Ptilopachinae, within the Odontophoridae, which is otherwise confined to the New World. Furthermore, previously unrecognised vocal and behavioural similarities between Stone Partridge and Nahan's Francolin support the genetic data and the transfer of *nahani* to *Ptilopachus*.

Source: Zootaxa *3670, pp. 97–98*

Kelp Gull taxonomy reviewed, but still little certainty…

Two new subspecies of Kelp Gull *Larus dominicanus* were described based on morphological characters as recently as 2002, *L. d. judithae* (on subantarctic islands in the Indian Ocean) and *L. d. melisandae* (on Madagascar). Now, the author of these taxa, Frédéric Jiguet (and others), has further investigated geographical phenotypic variation by separately analysing the biometrics and wingtip patterns of males and females. The sex-separated analyses confirmed the discriminant structures and wing patterns of *L. d. judithae* and *L. d. melisandae*, but failed to find differences among birds from Antarctica, South Georgia, and the Falklands, suggesting that the range of the not always recognised *L. d. austrinus* might encapsulate this entire region. Populations in southern Patagonia appeared close to *L. d. austrinus*, but they might also be considered intermediate between *L. d. dominicanus* and *L. d. austrinus*. Phenotypic characters also indicate that *L. d. antipodus* might represent a valid name for New Zealand populations, while a recently published molecular study suggests well-separated clades for birds breeding in New Zealand, Antarctica, and the Kerguelen Islands, while the genetic separation of birds from South America (*L. d. dominicanus*) and Namibia (*L. d. vetula*) requires further study. Further molecular studies are recommended, but for now the approach taken by the recently published Dickinson & Remsen (2012. *The Howard & Moore Complete Checklist of the Birds of the World*. Vol. 1), to return the species to monotypy, awaiting a more comprehensive review of all populations appears rather sensible.

Source: Zool. Stud. *51, pp. 881–892*

Socotra Scops Owl is a species, but not as we thought it was!

The scops owl on Socotra has increasingly been considered specifically in recent years, but detailed justification for this treatment has been lacking. The phylogenetic relationships among *Otus* owls from Socotra, the Arabian Peninsula and East Africa were recently investigated using molecular, vocalisation and biometric data. Socotra Scops Owl *O.* (*senegalensis*) *socotranus* is more closely related to Oriental Scops Owl *O. sunia* and the endemic Seychelles Scops Owl *O. insularis*. Considerable mitochondrial genetic distance and significant morphological differentiation from its two closest relatives, as well as its distinctive vocalisations compared to *O. insularis*, strongly support recognition of Socotra Scops Owl as a full species. Unexpectedly, two taxa from the Arabian Peninsula, Pallid Scops Owl *O. brucei* and African Scops Owl *O. senegalensis pamelae*, represent very distinct lineages; *O. brucei* is basal to a clade that includes taxa found in the Indo-Malayan region and on Indian Ocean islands. In contrast, *O. s. pamelae* occupies a well-supported basal position within a clade of continental Afro-Palearctic taxa. In addition to genetic distance, *O. s. pamelae* is also well differentiated phylogenetically, morphologically and vocally from *O. s. senegalensis*, and the authors of the study recommend its elevation to species status. Among mainland African *O. senegalensis* subspecies, Ethiopian populations appear to represent the most divergent lineage, whereas other lineages from Somalia, Kenya and South Africa are poorly differentiated. The large genetic distance between the Ethiopian haplotype and other African haplotypes (3.2%) suggests that the Ethiopian *Otus* may represent a cryptic taxon, and is now the subject of an ongoing investigation.

Source: Ibis *155, pp. 518–533*

Is Black-shouldered Nightjar 'just' a subspecies?

The current specific status of Black-shouldered Nightjar *Caprimulgus nigriscapularis* is based on relatively minor differences, in voice and plumage, from Fiery-necked Nightjar *C. pectoralis*. Des Jackson has recently presented mensural data, which have previously been largely overlooked, comparing *C. nigriscapularis* with the four races of *C. pectoralis*. The mean values of five key characters show clinal variation. Analyses of variance carried out on nine other key characters (in wing, tail, head and foot) revealed that, except for wing length, the null hypothesis, linking *C. nigriscapularis* with *C. p. shelleyi*, *C. p. fervidus*, *C. p. crepusculans* and *C. p. pectoralis*, could not be rejected. Consequently, Jackson concludes that the two current species are conspecific, Black-shouldered Nightjar being the northern race of Fiery-necked Nightjar.

Source: Bull. Br. Ornithol. Club *133, pp. 116–124*

Arise again, Archer's Lark

Two species of *Heteromirafra* lark have been recognised in the Horn of Africa in recent decades, the very poorly known Archer's Lark *H. archeri*, which is considered to be endemic to Somalia and has not been recorded with certainty since 1922, and the more recently discovered Liben (formerly Sidamo) Lark *H. sidamoensis* of south-central Ethiopia, which has been widely heralded as being en route to becoming potentially mainland Africa's first avian extinction of the modern epoch. The discovery, in 2004 by Hadoram Shirihai and the late Andreas Helbig (*cf. Br. Birds* 106: 304), of another population of *Heteromirafra* at Jijiga, just inside north-east Ethiopia, has led to questions concerning the taxonomy and nomenclature of this group. Applying an integrative approach, an international team led by Claire Spottiswoode has answered the challenge. From a combination of morphological and molecular evidence, they show that the recent sightings at Jijiga refer to Archer's Lark. Secondly, using morphological, molecular and vocal evidence, they demonstrate that these populations are conspecific with *H. sidamoensis*, and thirdly, that the extent and quality of habitat in north-east Ethiopia is probably small and poor, and that the type locality of Archer's Lark in Somalia has been completely transformed. Taken together, these results imply that there is a single species of *Heteromirafra* in the Horn of Africa (for which the scientific name *H. archeri* has priority, and which the authors suggest retains the English name Liben Lark), comprising two tiny populations separated by 590 km of apparently unsuitable habitats. These issues were also covered in a presentation at the most recent AGM of the Club (see p. 131), which can be viewed online at http://youtu.be/oufroKvt0VI.

Source: J. Ornithol. *154, pp. 813–825*

Cisticolids get comprehensive makeover

Two recent papers have examined relationships among the Cisticolidae, which family comprises *c.*110 species in the Old World tropics and subtropics. The first work sequenced four loci, retrieving monophyly for the family and confirmed *Neomixis* as its deepest branch. Several new relationships were well supported: Scrub Warbler *Scotocerca inquieta* nests in the cettid clade (and has been suggested to require its own family in other research), whereas Yellow-browed Camaroptera *Camaroptera superciliaris*, Chubb's *Cisticola chubbi* and Levaillant's Cisticolas *C. tinniens*, Black-chested Prinia *Prinia flavicans* and White-tailed Warbler *Poliolais lopezi* belong to the cisticolid clade (one of two main clades that the work recovered), which fully includes the following genera: *Poliolais*, *Camaroptera*, *Urolais*, *Artisornis*, *Oreolais*, *Apalis*, *Schistolais*, *Calamonastes* and *Spiloptila*. The other clade comprises *Orthotomus*, *Prinia*, *Cisticola*, *Scepomycter*, *Incana*, *Bathmocercus*, *Eminia*, *Hypergerus* and *Heliolais*. The results of this study confirm the polyphyly of *Orthotomus*, thereby generating a muddle between some *Cettia* and other Asian tailorbirds. The second study, published in *Molecular Phylogenetics & Evolution*, in contrast, found evidence of four major clades, one of which the authors describe as a new taxon, the Neomixinae (containing the three species of jery), with *Neomixis* again basal to the cisticolid lineage. *Rhopophilus* and *Scotocerca* were suggested to lie outwith the Cisticolidae. *Urorhipis* and *Heliolais* were placed in the genus *Prinia*, whereas Rufous-vented Prinia *P. burnesii* was found to be part of the Timaliidae (babblers) and is placed in the genus *Laticilla*.

Sources: Open Ornithol. J. *5, pp. 42–56;* Mol. Phyl. & Evol. *66, pp. 790–799;* BMC Evol. Biol. *12, 157*

Paradise flycatchers under the genetic spotlight

Two recent phylogenetic studies have examined diversification in paradise flycatchers (*Terpsiphone*). The first, by Pierre-Henri Fabre and colleagues, found that Asian Paradise Flycatcher *T. paradisi* is polyphyletic and comprises populations that have retained the ancestral plumage of the widespread *Terpsiphone*, while the genus appears to have colonised south-west Asia, the Indian Ocean and Africa from eastern Asia. The second, led by Rachel Bristol, focused on the Indian Ocean *Terpsiphone* taxa, and sampled both mitochondrial and nuclear DNA. This study suggested that many taxa should be treated as Evolutionarily Significant Units, 'as if they were separate species', with the result that Madagascar Paradise Flycatcher *Terpsiphone mutata* is subdivided into: *T. vulpina* (including *voeltzkowiana*) on Anjouan and Moheli respectively; *T. mutata* (including *singetra* and *pretiosa*) on Madagascar and Mayotte; and *T. comorensis* on Grand Comoro, while Mascarene Paradise Flycatcher *Terpsiphone bourbonnensis* becomes *T. bourbonnensis* on Réunion, and *T. desolata* on Mauritius.

Sources: J. Biogeogr. *39, pp. 1900–1918;* Mol. Phyl. & Evol. *67, pp. 336–347*

Bluntschli's Vanga is not a species

Described in 1996 from two specimens collected in the early 1930s in south-east Madagascar, Bluntschli's Vanga *Hypositta peridita* had been assumed to be an extinct species of Vangidae, although doubts had been expressed concerning its validity. A recent genetic study, backed up by a more detailed investigation into the specimens' morphology has demonstrated that the doubters were correct. The new analysis has apparently proven beyond all reasonable doubt that the two specimens are in fact fledglings of the reasonably common and widespread White-throated Oxylabes *Oxylabes madagascariensis*, a member of the recently erected family Bernieriidae.

Source: Bull. Br. Ornithol. Club *133, pp. 72–75*

Relationships among the African brown buntings

A phylogeny for the ten taxa currently placed in four polytypic species that collectively encompass

Cape Bunting / Bruant du Cap *Emberiza capensis* (Keith Valentine)

the African 'brown buntings'—Cape Bunting *Emberiza capensis,* Cinnamon-breasted Bunting *E. tahapisi,* Lark-like Bunting *E. impetuani* and House Bunting *E. striolata*—using mitochondrial and nuclear material has found substantial divergence between several taxa usually treated as conspecific: *sahari* versus *striolata* (2.6–3.1%) and *goslingi* versus *tahapisi* (4.4–4.7%). A single representative of the taxon *septemstriata,* generally treated as a member of the dark-throated *tahapisi* group, appears to be genetically consistent with grey-throated *goslingi,* and may be of hybrid origin. All other taxa allocated to *E. striolata* and *E. tahapisi* comprise four reciprocally monophyletic groups consistent with *sahari, striolata, tahapisi* and *goslingi,* respectively. The extent of genetic evidence suggests that these taxa have been evolving as separate evolutionary lineages for a long time. This is further manifested in several morphological and vocal characteristics described by other works, and Urban Olsson *et al.* (the authors of the current study) have recommended that the following taxa be treated as separate species: Cinnamon-breasted Bunting *E. tahapisi,* Gosling's Bunting *Emberiza goslingi,* Striolated Bunting *E. striolata* and House Bunting *E. sahari.*

Source: Ibis *155, pp. 534–543*

Cinnamon-breasted Bunting / Bruant cannelle *Emberiza tahapisi* (Adam Riley / Rockjumper Birding Tours)

The origin of the South Atlantic buntings

Up to four species of *Rowettia* and *Nesospiza* buntings inhabit the remote islands of Gough and the Tristan da Cunha group, namely Gough Bunting *Rowettia goughensis,* Inaccessible (Tristan) Bunting *Nesospiza acunhae,* Nightingale Bunting *N. questi* and Grosbeak (Wilkins's) Bunting *N. wilkinsi.* The first-named is currently listed as Critically Endangered, the last as Endangered, and the other two are both treated as Vulnerable by BirdLife International. Many commentators have previously noted the close morphological similarities between these species and the two *Melanodera* finch species of southern South America. Now, a recent genetic study has confirmed this relationship. Sequences from two mitochondrial and four nuclear genes indicated that the *Nesospiza* finches of the Tristan da Cunha archipelago and *Rowettia goughensis* from Gough Island, 380 km distant, are both derived from the Patagonian *Melanodera* finches. In the analyses, *Melanodera* typically was sister to *Rowettia,* although some genes linked it more closely to *Nesospiza.* There was no evidence that *Rowettia* and *Nesospiza* are sister taxa, suggesting that the South Atlantic finches evolved from separate colonisation events, as apparently was the case for moorhens (*Gallinula* spp.) on the two island groups. Genetic divergence between the two island finch genera provides an estimate of the maximum period of time they have been present on the islands, i.e. some 3–5 million years.

Source: Mol. Phyl. & Evol. *doi.org/10.1016/j.ympev.2013.05.026*

Are rivers zoogeographical barriers in Africa?

The Riverine Barriers Hypothesis (RBH) posits that tropical rivers can be effective barriers to gene flow, given that range limits often coincide with river barriers. Over the last 160 years, this hypothesis has received attention from various perspectives, with a particular focus on vertebrates in the Amazon Basin. To date, no molecular assessment of the RBH has been conducted on birds in the Afrotropics, despite many Afrotropical birds being widespread across numerous watersheds and basins. Gary Voelker *et al.* have published the first genetic evidence that an Afrotropical river serves as a barrier for birds (and for their lice), based on four understorey bird species—Fire-crested Alethe *Alethe castanea,* Red-tailed Bristlebill *Bleda syndactyla,* Pale-breasted Illadopsis *Illadopsis rufipennis* and Forest Robin *Stiphrornis erythrothorax*—collected at sites north and south of the Congo River. Their results indicate near-contemporaneous, Pleistocene lineage diversification across the Congo River in these species and further indicate differing levels of genetic variation in bird lice. The authors speculate that extensive cryptic diversity is harboured in Afrotropical forests, at least in understorey birds, and that substantial evolutionary diversification may have occurred in Afrotropical forests throughout the Pleistocene, supporting the Pleistocene Forest Refuge Hypothesis.

Source: Ecol. & Evol. *3, pp. 536–545*

Internet resources

Angolan checklist

The first birder's checklist of Angolan birds published in Portuguese and English is available free of charge in .pdf format at the Birds Angola website at www.birdsangola.org/birdlist.htm. A field checklist will be published in the near future. Angola is still a little-studied / visited country but things are changing slowly and one aim of the checklist is to encourage more young Angolan ornithologists and visiting birders. Suggestions for improvements are welcome, can be sent via the link on the website, and will be considered for the planned second edition (in 2015).

Source: Michael Mills & Martim Melo in litt. *May 2013*

Vocal profiles for the galagos: a tool for identification

The African galagos (Family Galagidae) are nocturnal, small, often difficult to observe, and most are phenotypically cryptic. As such, they are frequently difficult to identify with confidence, particularly in the field. Being nocturnal, conspecifics mainly identify each other using auditory and olfactory cues, and all have species-specific 'loud calls' ('advertisement calls'). These have several functions, one being long-distance species identification. Scientists are now able to identify all currently recognised species by their loud calls. The Nocturnal Primate Research Group at Oxford Brookes University maintains a collection of African wildlife vocalisations, including > 300 hours of recordings obtained by the group's 24 members from many field sites over the past 40 years. From this extensive collection, 27 vocal profiles for 24 taxa of galagos have been compiled. The recordings are now freely available at: www.wildsolutions.nl. Each species is illustrated by Stephen Nash, and additional recordings of galagos and other species will be added to the site when available. If you have good-quality recordings of galago vocalizations that you can deposit with the group, please contact Simon Bearder at: skbearder@brookes.ac.uk.

Source: T. Butynski in litt. *May 2013*

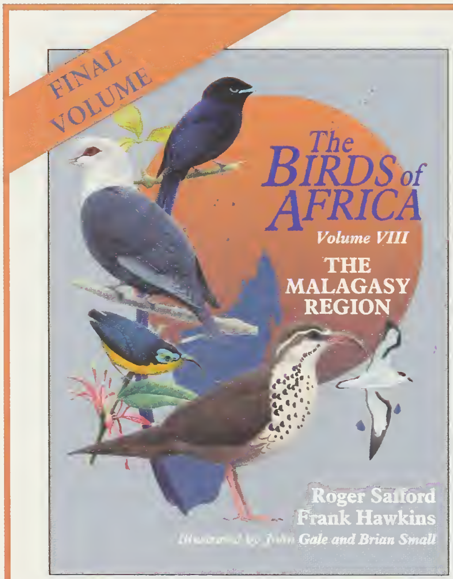
Corrigenda

Bull. ABC 19(2)

In the note on the first Dwarf Bittern *Ixobrychus sturmii* for St. Helena, the cardinal points in the coordinates on p. 214, first line, were erroneously transposed and should read 15°56'23.52"S 05°42'41.01"W.

Bull. ABC 20(1)

In Africa Round-up, *Merops muelleri* is named Black Bee-eater in the first item of Taxonomic proposals on p. 18; it should be Blue-headed Bee-eater. Additionally, both items sourced to vol. 32 of *Malimbus* on p. 13, actually refer to vol. 34 (2012).



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Is Sharpe's Longclaw *Macronyx sharpei* a fire-dependent species in Kenya's Altimontane zone?

Luca Borghesio[a,b], *Muchai Muchane*[b], *Kariuki Ndang'ang'a*[c] *and Peter Njoroge*[b]

La Sentinelle de Sharpe *Macronyx sharpei* est-elle une espèce dépendante du feu dans la zone afroalpine du Kenya? La Sentinelle de Sharpe *Macronyx sharpei* est une espèce endémique du Kenya classée comme « Menacée d'extinction » et restreinte aux prairies à buttes au-dessus de 1.900 m. L'espèce a été étudiée sur la partie la plus basse de sa distribution altitudinale (1.900–2.500 m), mais les données provenant d'altitudes plus élevées n'ont pas été confirmées depuis plusieurs décennies. Les résultats sont rapportés d'un recensement réalisé en août 2008 et mars–juillet 2009 dans des habitats de haute altitude des Parcs Nationaux du Mont Kenya, du Mont Elgon et d'Aberdare et leurs environs. La Sentinelle de Sharpe a été observée sur le Mont Elgon (deux individus à 3.490 m) et le Mont Kenya (trois à 3.592 m), mais la densité des populations était faible (0.21 individus / ha), indiquant que l'habitat est suboptimal. Les auteurs ont trouvé maintes indices que les prairies sont envahies par des arbustes en de nombreux endroits et il est possible qu'une gestion du feu sera nécessaire pour conserver ces habitats sur les montagnes du Kenya. Des recherches complémentaires sont requises afin de mieux estimer la taille de la population de la Sentinelle de Sharpe sur les massifs de haute altitude du Kenya et d'y tester l'hypothèse de sa dépendance du feu.

Summary. Sharpe's Longclaw *Macronyx sharpei* is an Endangered Kenyan endemic, restricted to tussock grasslands above 1,900 m. The species has been studied at the lower end of its altitudinal range (1,900–2,500 m), but records from higher elevations have not been confirmed for several decades. We report the results of a survey undertaken in August 2008 and March–July 2009 in high-altitude habitats in and around Mount Kenya, Mount Elgon and Aberdare National Parks. We recorded Sharpe's Longclaws on Mount Elgon (two at 3,490 m) and Mount Kenya (three at 3,592 m), but population densities were low (0.21 individuals / ha), suggesting the habitat is suboptimal. We found widespread evidence of grassland being encroached by shrubs, and hypothesise that appropriate fire management might be required to maintain such habitats in Kenya's high mountains. More research is required to better estimate the size of Sharpe's Longclaw populations in Kenyan high montane massifs and to test the hypothesis of its fire-dependence there.

Sharpe's Longclaw *Macronyx sharpei* is endemic to a small range in central and western Kenya (Zimmerman *et al.* 1996). It is a habitat specialist, restricted to open, treeless, high-altitude grassland with short, tussocky grass. Patches with long (>30 cm) grass support a markedly smaller number of territories, and grass tussocks are essential, because adults use them for nesting, lookout and shelter (Muchai *et al.* 2002). Moreover, tussocks might also represent key foraging sites because pecking rates of foraging adults are higher close to them (Muchai *et al.* 2002). It has been suggested (Muchai *et al.* 2002) that the persistence of Sharpe's Longclaw in a grassland depends on intermediate levels of disturbance, which is caused by the grazing of mammalian herbivores (mainly domestic sheep and cows). Low grazing intensity will result in long grass and bush encroachment, whilst too intense grazing will destroy grass tussocks. In both cases, habitat quality for Sharpe's Longclaw will be negatively affected. Therefore, appropriate habitat management is of central importance for the conservation of Sharpe's Longclaw.

Territory size usually varies between 0.4 and 5.6 ha; smaller territories indicate better habitats (Muchai *et al.* 2002). Sharpe's Longclaw is also sensitive to landscape characteristics, as territory density, even in appropriate tussock grassland, decreases when patches become smaller than 20 ha and are embedded in an inhospitable matrix of crops or tree plantations (Lens *et al.* 2001).

The altitudinal distribution ranges from *c.*1,850 to >3,500 m (BirdLife International 2012), but it is markedly bimodal, because on Kenyan mountains the belt between 2,600 and 3,000 m tends to be occupied by forests. Most records of Sharpe's Longclaw come from altitudes below 2,600 m. The few observations from above the forest belt originate from the three highest massifs in Kenya, namely the Aberdare Range, Mount Kenya and Mount Elgon. All were obtained more than 40 years ago (Meinertzhagen 1937, Britton & Sugg 1973), with no recent confirmation of the species' continued presence at such high elevations, from what White (1983) termed the Altimontane (=Afroalpine) zone, where a mosaic of ericaceous shrubland, elfin thicket and (sub-)alpine grassland is maintained in a shifting equilibrium by fire, herbivore grazing and harsh climate (Young 1996).

Sharpe's Longclaw is a globally threatened species, currently classified as Endangered under IUCN criteria (BirdLife International 2012). The main threat is habitat destruction, because most of its habitat is prime agricultural land. On the Kinangop plateau, the species' main stronghold, earlier estimates (Ndang'ang'a *et al.* 2002) suggest that by the year 2012, grassland might occupy less than 20% of its former extent, with most of the remaining patches too small to support viable territories. Rapid conversion of natural grassland to agriculture has also been observed at other sites, such as Molo-Mau Narok (Ndang'ang'a *et al.* 2003) and Uasin Gishu (BirdLife International 2012). This problem is exacerbated by the fact that almost all of the grassland below the forest belt is privately owned farmland with no official protection. Only at the highest end of its altitudinal range might Sharpe's Longclaw occur inside protected areas, because the Aberdare Range, Mount Kenya and Mount Elgon are national parks. Unfortunately, with no recent records from these three mountains, it is impossible to know whether Sharpe's Longclaw still persists inside protected areas, or, if it does, what conservation management might be appropriate. This issue is important because the ecology of Altimontane grasslands differs from that of lower altitude sites, where Sharpe's Longclaw has been studied in more detail. At lower altitudes, grasslands are currently maintained by grazing of domestic herbivores, while above 3,000 m only wild herbivores occur and grazing intensity is lower. Also, fires regularly occur in Altimontane grasslands (Young 1996) unlike at lower altitudes, where landowners attempt preventive measures.

Here we report on preliminary surveys of the three Altimontane areas where Sharpe's Longclaw was recorded in the past. Our objectives were to confirm the species' continued presence at these sites, to obtain preliminary information on its population, and to assess possible threats and management issues that are specific to high-altitude populations.

Study areas and Methods

Field work was undertaken in alpine habitats (>2,700 m) in Aberdare (8–9 August 2008) and Mount Elgon (12 September 2009) National Parks. Birds were counted walking at *c.*2 km/hour along transects through open grassland, the only habitat where Sharpe's Longclaw is known to occur. Seven transects were surveyed, over a total length of 5,750 m (Table 1, Fig. 1): four in Aberdare National Park (total length 3,850 m;

Table 1. Summary of transect location and habitat characteristics. Geographic coordinates identify the central points of each transect.

Tableau 1. Aperçu de la localisation des transects et des caractéristiques de l'habitat. Les coordonnées géographiques indiquent le point central de chaque transect.

Location	Date	Length	Elevation	Coordinates (WGS84)		Grass height	Percentage cover of:				*M. sharpei* present
				North	East		Grass	Shrubs	Trees	Rocks	
Aberdare	8 Aug 08	1,050 m	3,057 m	00°24'27"	36°43'33"	120 cm	100	0	0	0	no
Aberdare	8 Aug 08	1,000 m	2,986 m	00°26'20"	36°43'29"	80 cm	95	5	0	0	no
Aberdare	9 Aug 08	900 m	2,918 m	00°31'24"	36°43'03"	150 cm	95	5	0	0	no
Aberdare	9 Aug 08	900 m	2,884 m	00°28'48"	36°43'55"	100 cm	95	5	0	0	no
Elgon	12 Sep 09	710 m	3,461 m	01°05'01"	34°37'20"	40 cm	93	5	2	0	yes
Elgon	12 Sep 09	750 m	3,224 m	01°04'34"	34°38'29"	30 cm	98	0	2	0	no
Elgon	12 Sep 09	440 m	2,777 m	01°03'12"	34°43'25"	70 cm	70	0	0	30	no

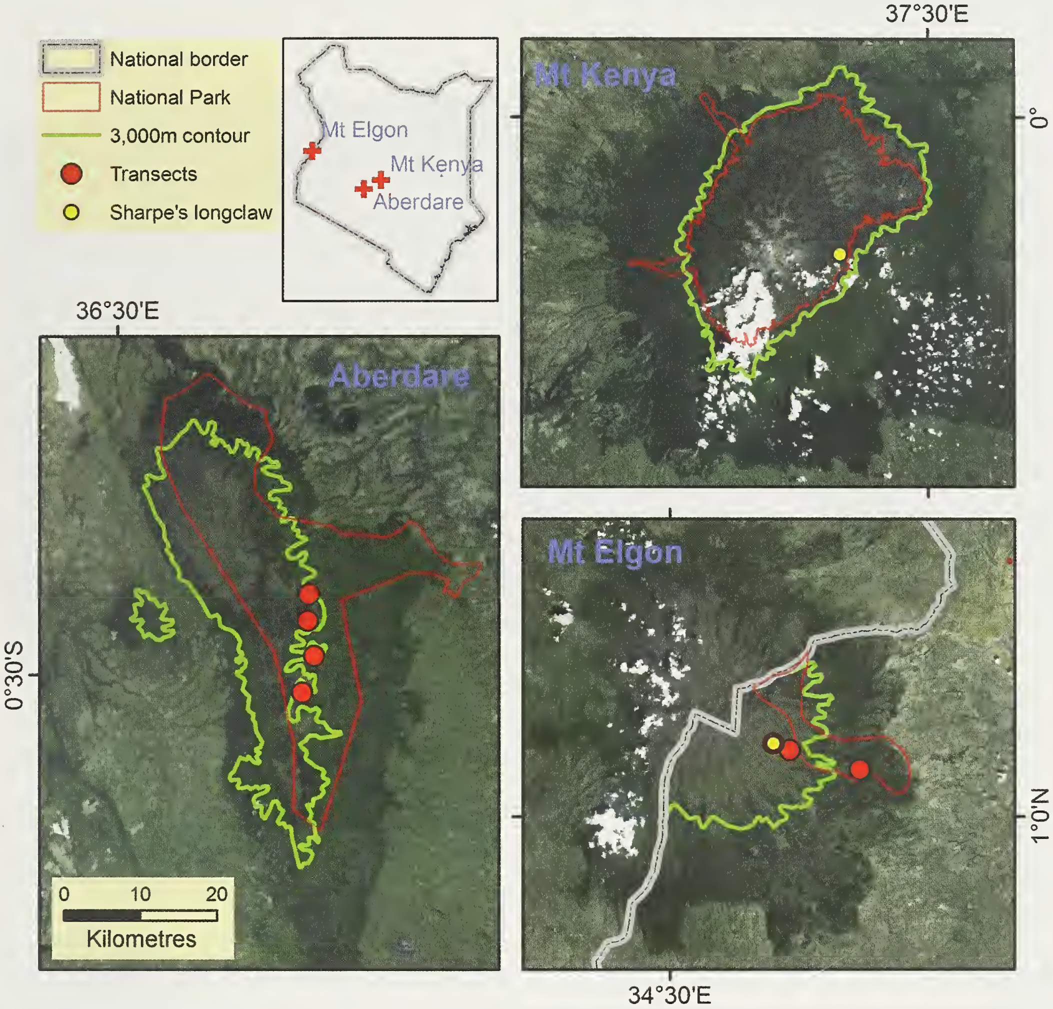

Figure 1. Satellite views of the three study areas. Dark green = montane forest; paler areas above the forest (>3,000 m) = altimontane habitats; those located below the forest are agricultural landscapes.

Images satellitaires des trois zones d'étude. Vert foncé = forêt de montagne ; zones plus pâles au-dessus de la forêt (>3.000 m) = habitats afroalpins ; les zones au-dessous de la forêt sont des zones agricoles.

elevation 2,884–3,057 m, mean 2,961 m) and three on Mount Elgon (total length 1,900 m; elevation 2,777–3,461 m, mean 3,153 m). Mean length of transects was 963 ± 75 m (s.d.) in Aberdare, and 633 ± 168 m (s.d.) on Mount Elgon, translating into a total of 19.3 ha of grassland surveyed in Aberdare and 9.5 ha on Mount Elgon. In order to flush concealed birds, a 50 m-long rope whose ends were held by two observers was dragged over the grass (Muchai *et al.* 2002). All counts were made by 3–4 observers, and the coordinates of the start and end points of each transect were recorded using a GPS (Table 1). In each transect, grass height was measured at 100 m intervals along the central line of the transect. Other relevant habitat features were also recorded for the transect as a whole, namely habitat composition (percentage of grassland, shrubs, bare rocks and trees within the surveyed area), signs of fire, bush encroachment, and evidence for the presence of wild or domestic herbivores.

Additional observations were made during an avifaunal survey of the southern side of Mount

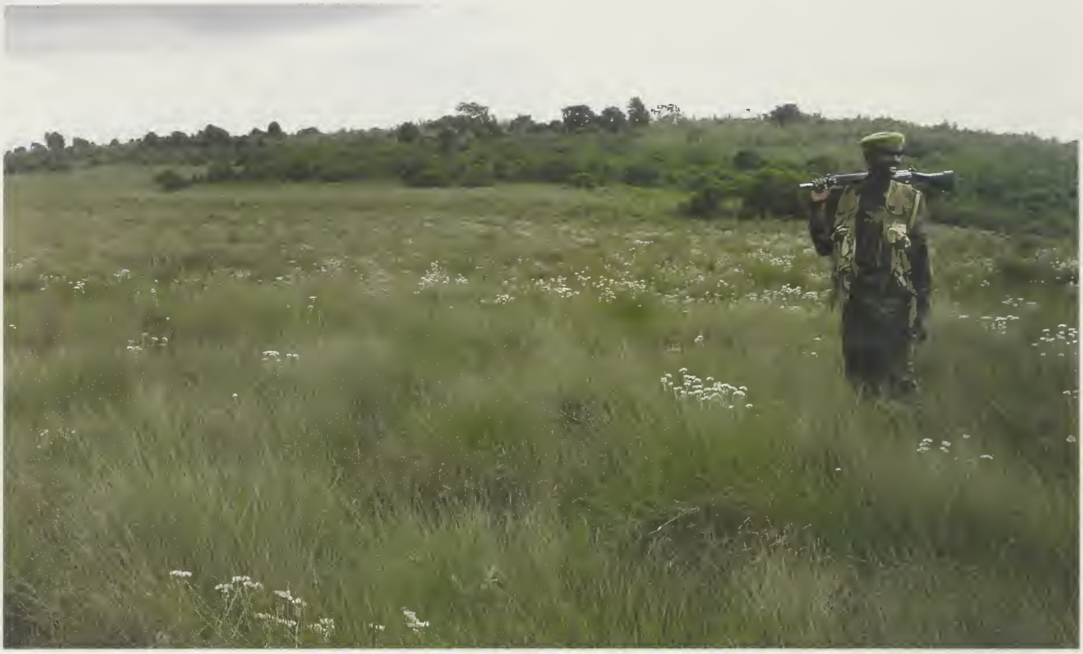

Figure 2. Altimontane grassland in Aberdare National Park. The photograph shows tall grass, unsuitable for Sharpe's Longclaw *Macronyx sharpei*, and bush encroachment in the background (Luca Borghesio)

Prairie afroalpine dans le Parc National d'Aberdare. La photo montre des hautes herbes, qui ne conviennent pas à la Sentinelle de Sharpe *Macronyx sharpei* et, en arrière-plan, l'envahissement des arbustes (Luca Borghesio)

Kenya National Park on 10–11 March 2009. During this visit Sharpe's Longclaw was not the principal focus of study, therefore no standardised transect counts were performed.

Results

No Sharpe's Longclaws were found in Aberdare National Park. Grass height in the transects was 80–150 cm (mean 107 cm). No traces of recent fires were observed in the area covered by the transects, and ongoing bush encroachment was recorded at all sites visited.

On Mount Elgon, two Sharpe's Longclaws were observed at 3,490 m, in a grassland with signs of fire (charred logs on the ground; Fig. 2). The location was *c.*3 km outside the national park, which protects only a small proportion (*c.*15%, Fig. 1) of the Altimontane habitat on the Kenyan side of Mount Elgon. Grass height in the transects was 30–70 cm (mean 53 cm) and bush encroachment was recorded in all of them.

On Mount Kenya, three Sharpe's Longclaws were observed on 10 March 2009, in tussock grassland at 3,592 m (Fig. 1). Grass was estimated to be 30 cm high, and the site showed traces of a fire.

Discussion

Our survey demonstrated that Sharpe's Longclaw persists on at least two of the three high mountains in Kenya. Its presence on the Aberdare Range could not be confirmed, but this possibility should not be excluded yet, as our survey only covered a small part of the Altimontane habitat in the area (Fig. 1).

This study suggests that, in Altimontane grasslands, individual densities are low. On Mount Elgon, two birds (probably a pair) were observed in 9.5 ha of grassland (0.21 individuals / ha), while on Mount Kenya, where no standardised transect count was carried out, the abundance of the species was presumably also low, as only two individuals were seen in four days of field work in the Altimontane zone. In contrast, density estimates in lower altitude grasslands (<2,600 m) reveal that short-grass tussock grassland can support from 1.4 individuals / ha (Muchai *et al.* 2002) to 2.2 individuals / ha

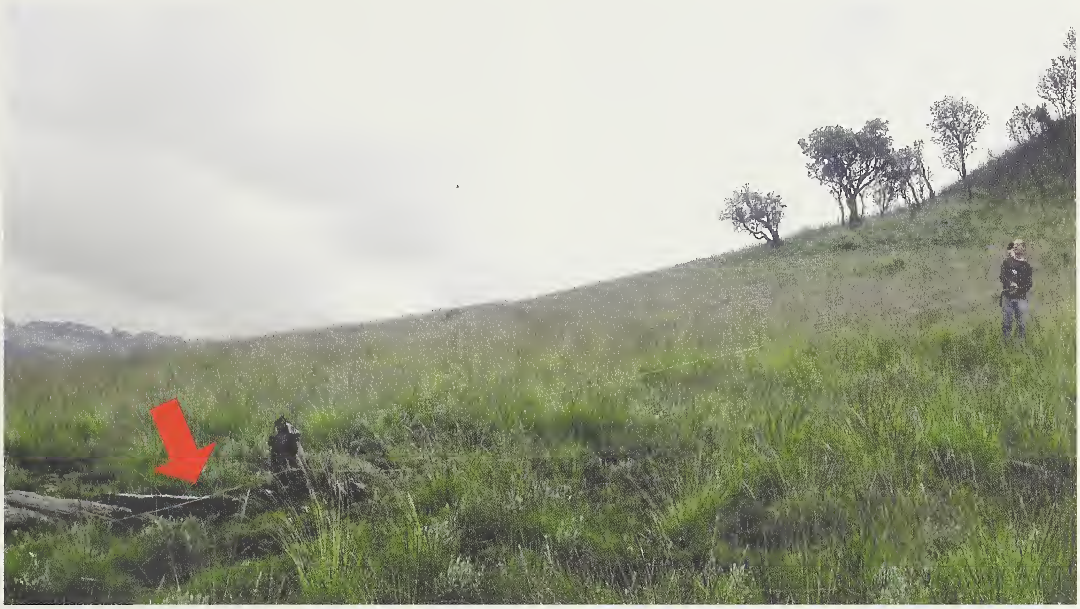

Figure 3. The field team performing rope-dragging transect counts on Mount Elgon at the site where two Sharpe's Longclaws *Macronyx sharpei* were observed on 12 September 2009. The red arrow points to a burnt tree on the ground. Notice the short, tussocky grass, favourable for Sharpe's Longclaw (Luca Borghesio)

L'équipe de terrain réalisant des comptages de transect en traînant une corde sur le site au Mont Elgon où deux Sentinelles de Sharpe *Macronyx sharpei* ont été observées le 12 septembre 2009. La flèche rouge indique un arbre brûlé au sol. Noter les touffes d'herbe basse, favorables à la Sentinelle de Sharpe (Luca Borghesio)

(Ndang'ang'a *et al.* 2003). Therefore, population density in Altimontane habitats appears lower than that observed in optimal sites, although we acknowledge that our survey was conducted over a short temporal frame, and therefore we cannot exclude the possibility that population densities might be higher if seasonal movements occur during other months. However, if densities of Sharpe's Longclaw in Altimontane grasslands are genuinely lower than those observed at lower altitudes, this may partially reflect the climatic characteristics of the Altimontane zone, e.g. lower temperatures and different rainfall regime, but we also found that, at least at the time of our survey, grass height (mean 107 cm in the Aberdare Range, 53 cm on Mount Elgon) was higher than the optimum for Sharpe's Longclaw, which is <30 cm (Muchai *et al.* 2002). As well as suboptimal grass height, another limiting factor to populations of Sharpe's Longclaw in high mountains may be shrub encroachment, which was observed at all the sites. While a precise assessment of the extent of Altimontane grasslands on Kenyan mountains would require a more detailed study, it appears that only a minority, probably no more than 10%, of the area above the treeline is covered by grasslands, while the rest is shrubland, thicket and dwarf forest. Despite this, even accepting the low densities that we observed, Altimontane grasslands might prove to be important habitats for Sharpe's Longclaw. In fact, assuming mean densities of 0.2 individuals / ha and that grasslands comprise *c.*10% of the Altimontane zone, there is possibly *c.*2,000 ha of grasslands above 3,000 m on Mount Elgon and *c.*5,000 ha on Mount Kenya. This translates to *c.*400 individuals of Sharpe's Longclaw on Mount Elgon, and 1,000 on Mount Kenya.

At the sites where Sharpe's Longclaw was observed on Mount Elgon and Mount Kenya signs of 1–5-year-old fires were observed—inferred because fire-scarred logs, but no ashes or burnt twigs, were observed on the ground at both sites. Various authors have suggested that Altimontane grasslands are a fire-maintained habitat in East Africa (Hedberg 1951, Schmitt 1991) and recently burnt areas covered by luxuriant short-grass swards have been reported on Mount Elgon (Ekkens 1988). While most fires nowadays are started by people (Wesche *et al.* 2000, Hemp 2006), paleoecological data show that low-intensity fires have occurred in the Altimontane zone of the East African mountains since at least the last glacial maximum (>18,000 years BP) and that grasslands in this zone show some adaptations to burning (Wooller *et al.* 2000). This suggests that fire has long been an important component in the maintenance of habitat diversity in the Altimontane zone (Wesche *et al.* 2000, Wesche 2002). Moreover, it appears that the grazing of wild mammals alone is insufficient to maintain Altimontane grasslands, because where fires are successfully prevented, as is currently the case in Aberdare National Park, rapid bush encroachment occurs (Thenya 2011). We propose that Sharpe's Longclaw could be a fire-dependent species at the upper end of its altitudinal range, because, in the absence of fire, grassland is encroached by shrub and bushland.

The use of controlled fire might represent an important tool to conserve Sharpe's Longclaw in the Altimontane zone. However, at present, fire management in Kenyan national parks consists exclusively of fire-fighting and prevention. In the 1960s and early 1970s, the authorities of Aberdare National Park used annual controlled early burning to reduce the danger of hot (intense) burns occurring in Altimontane habitats, but this practice has been discontinued. Recent fire prevention has been very successful, with an electrified fence nearly 400 km long, constructed in 1989–2009, around the entire perimeter of the park. In consequence, land cover in the park has undergone a marked transition: between 2000 and 2010 satellite images reveal a 9% decrease in the extent of moorlands (dominated by dwarf shrubs) and a 54% decrease of grasslands in the Altimontane zones (Thenya 2011), with these areas being occupied by increasing woodlands and montane forest.

On the other hand, on Mount Kenya and Mount Elgon, prevention is enforced less effectively, and fires still occur (Wesche *et al.* 2000, Anon. 2012). However, these fires are relatively low-frequency events, and tend to be very hot due to the build-up of fuel on the ground. Hot fires can be very damaging, and vegetation recovery, including that of grass tussocks, is impaired thereafter (Wesche 2002). The results of our survey suggest the hypothesis that both the absence of fires, and infrequent, hot fires, will promote loss of the short-grass tussock grassland on which Sharpe's Longclaw depends. On the contrary, more frequent, controlled fires will have lower temperatures and favour the expansion of short-grass tussock grasslands, which are the preferred habitat of Sharpe's Longclaw and also provide important foraging for large mammalian grazers. Appropriate fire management has already pinpointed as a key issue in the conservation of grassland birds in other regions, e.g. North America (Brawn *et al.* 2001) and South Africa (Parr & Chown 2003) We propose that this hypothesis urgently needs field testing with a more in-depth study than ours.

In conclusion, we showed that, several decades after their initial discovery, populations of Sharpe's Longclaw persist on at least two of the three highland massifs in Kenya. On Mount Kenya, the species occurs within the national park, which is therefore the only government protected area where the species currently occurs. On Mount Elgon, Sharpe's Longclaw was observed close to but outside of the park, which should ideally be enlarged to include a larger area of Altimontane grasslands. More work is necessary in Aberdare National Park to clarify the species' status there.

The persistence of Sharpe's Longclaw in Altimontane grasslands is important because human activities and land-use change are relatively limited in these areas, thus reducing threats to the species' survival. However, we hypothesise that lack of fire management could be degrading the quality and extent of Altimontane Sharpe's Longclaw habitat by promoting bush encroachment and suboptimally tall grass. Future research should more formally test the hypothesis that Sharpe's Longclaw is fire-dependent in Altimontane grasslands, and evaluate whether the long-abandoned practice of early dry season controlled fires should be resumed to expand short-grass tussock grasslands and to avoid catastrophic hot fires caused by fuel build-up.

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Bird observations around Juba, South Sudan

Mark Mallalieu

Observations ornithologiques dans les environs de Juba, Soudan du Sud. Les résultats sont présentés d'observations ornithologiques réalisées dans les environs de Juba, Soudan du Sud, entre le 12 septembre 2010 et le 1er septembre 2012. Au total, 323 espèces ont été identifiées. Une attention particulière est apportée aux espèces d'intérêt pour la conservation, dont huit ont été recensées, et aux espèces confinées à un certain biome, dont 27 ont été notées, la plupart confinées au biome de la Savane soudano-guinéenne. Des compléments aux données de l'atlas de Nikolaus (1987) sont également présentés.

Summary. The results of bird observations made around Juba, South Sudan, during the period 12 September 2010 to 1 September 2012, are presented. In total, 323 species were identified. Attention is drawn to species of conservation concern, of which eight were recorded, and biome-restricted species, of which 27 were recorded, mostly from the Sudan-Guinea Savanna biome. Additions to atlas data in Nikolaus (1987) are also presented.

As noted by de Bont (2009), there is little recent information on the birds of South Sudan. This is mainly due to the history of violent conflict spanning four decades and an associated lack of security, transport infrastructure and facilities for independent visitors. The country seceded from Sudan on 9 July 2011. Nikolaus' (1987, 1989) publications, based to a considerable extent on his own field work during the 1970s, remain primary references. De Bont's (2009) paper provides substantial new information on birds in a remote area in the far south-east of the country, while some observations made opportunistically by visitors in 2005–11 have been published informally (B. Piot *in Bull. ABC* 13: 108; O. Brauer *in Bull. ABC* 15: 138; B. Piot *in Bull. ABC* 16: 111; B. Piot & E. Leonardi *in Bull. ABC* 18: 107–108).

From 12 September 2010 to 1 September 2012, I lived in South Sudan's capital Juba, Central Equatoria State, working for the UK's Department for International Development (DFID). During much of my assignment I was able to make bird observations around Juba, sometimes in the company of other observers. Here I report on findings from this field work.

Study area

Location

The observations presented here were made within a 50 km radius of my home in central Juba (04°51'N 31°35'E), either within the town, by the White Nile, or along one of the roads out of Juba. All sites visited lie within one-degree (120 × 120 km) squares 4/31 (04°00'N 31°00'E) or 5/31 (05°00'N 31°00'E). For a few species, one or more records from outside this area are also included, where these add to their known status in South Sudan.

Habitat and land use

Juba (*c*.490 m) lies on the west bank of the White Nile *c*.127 km north of the border with Uganda. The town extends *c*.8.5 km north-east and south-west along the river, and 13 km westwards. The built-up area is expanding rapidly, especially to the west and north-west. There is little industry and the local economy is dominated by government and services. Population size is unknown but is estimated to have doubled in five years to 500,000 in 2010 (Overseas Development Institute 2010) and is still increasing. Many of the trees along the roads and in compounds are exotics, notably the abundant Neem *Azadirachta indica*, as well as Papaya *Carica papaya*, *Leucaena* spp., *Eucalyptus* spp., Mango *Mangifera indica* and Teak *Tectona grandis*. Indigenous trees and shrubs include *Acacia* spp., Desert Date *Balanites aegyptica*, *Calotropis procera*, *Sterculia* spp., *Cassia* spp. and the palm *Borassus aethiopum*. There are no extensive green areas within the town itself. At least one abattoir attracts vultures and other avian scavengers.

North of Juba, along the road towards Terekeka, the landscape within the study area lies below 500 m. It is mainly rather flat or gently undulating and open, with grassland, scrub and trees (Fig. 1) as well as depressions that are dry and heavily grazed (Fig. 2) until the rainy season when

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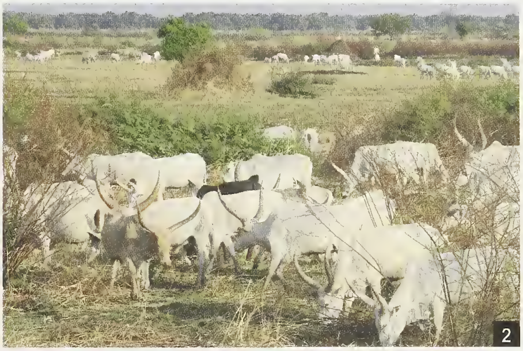
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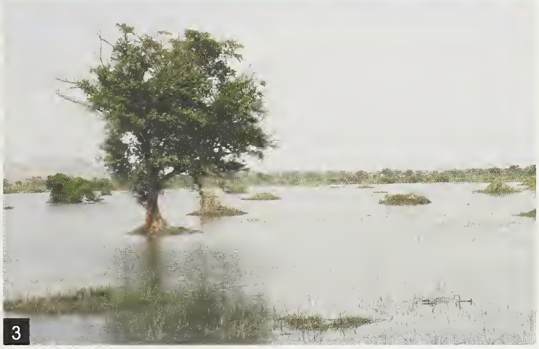
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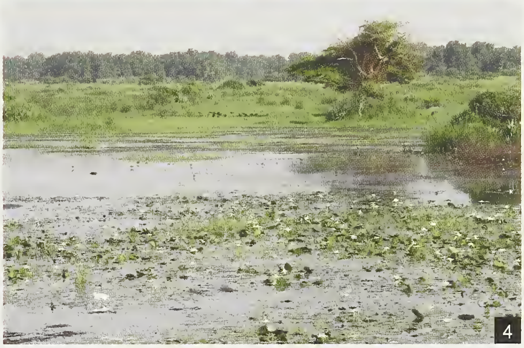
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Figure 1. Bushland 18 km north of Juba, South Sudan, January 2012 (M. Mallalieu)
Brousse à 18 km au nord de Juba, Soudan du Sud, janvier 2012 (M. Mallalieu)

Figure 2. Cattle on low-lying land 5 km north of Juba, South Sudan, early April 2012 (M. Mallalieu)
Bétail sur des terres basses à 5 km au nord de Juba, Soudan du Sud, début avril 2012 (M. Mallalieu)

Figure 3. The same area as in Fig. 2, late April 2012 (M. Mallalieu)
La zone de la Fig. 2, fin avril 2012 (M. Mallalieu)

Figure 4. Flooded land 5 km north of Juba, South Sudan, late June 2012 (M. Mallalieu)
Terre inondée à 5 km au nord de Juba, Soudan du Sud, fin juin 2012 (M. Mallalieu)

they are transformed into large marshes (Figs. 3–4). I did not document in detail the natural vegetation, although commoner trees and shrubs include *Acacia* spp., *Balanites aegyptica*, *Sterculia* spp., *Zizyphus* spp. and Grewia *Grewia* spp., with a few large fig trees *Ficus* spp., especially near watercourses.

East of the White Nile, within the study area, the road south-southeast towards Nimule traverses an undulating open landscape of grassland, scrub and small trees, rising to *c*.550 m. *Acacia* and *Zizyphus* spp. are common and there are also many Combretaceae. Closer to the river, the road to Karpeto is low-lying with more cultivation, wetter areas and *Acacia* savannah (Figs. 5–6). I rarely travelled west or south of Juba on the west side of the White Nile and did not document the habitat types in these areas beyond noting open, bushy landscapes with scattered cultivation and no areas of dense woodland.

There is extensive wood extraction, especially for charcoal-making, along all of the main routes into Juba. Over the two years I was in the capital, there was also a noticeable increase in land under cultivation outside the town, mostly small-scale community activity with crops including sorghum, maize and groundnuts, with a few larger farms. Some communities outside Juba, such as the Mundari, are pastoralists owning large herds of cattle. Most grassland is burnt during the dry season.

Along the banks of the White Nile (Fig. 7) and on its islands there are many Mango trees and much cultivated land. The main island

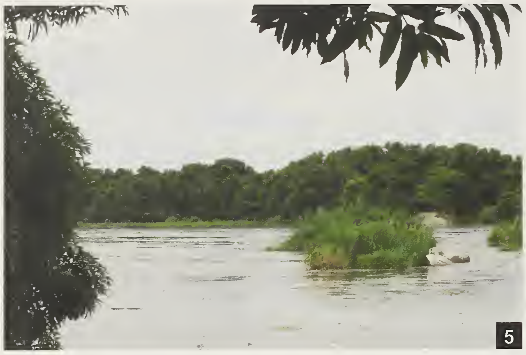

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Figure 5. Bushy grassland at Rejaf, 7 km south-east of Juba, South Sudan, late August 2012 (M. Mallalieu)

Prairie buissonnante à Rejaf, à 7 km au sud-est de Juba, Soudan du Sud, fin août 2012 (M. Mallalieu)

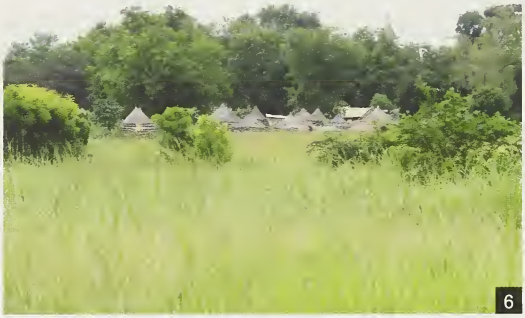

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Figure 6. *Acacia*-wooded grassland 5 km south-east of Juba, South Sudan, mid June 2012 (M. Mallalieu)

Savane boisée d'*Acacia* à 5 km au sud-est de Juba, Soudan du Sud, mi-juin 2012 (M. Mallalieu)

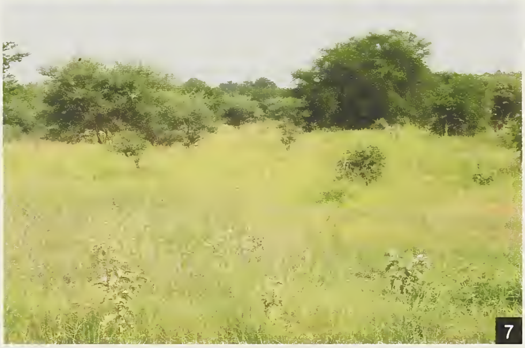

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Figure 7. White Nile at Juba, South Sudan, late April 2012 (M. Mallalieu)

Le Nil Blanc à Juba, Soudan du Sud, fin avril 2012 (M. Mallalieu)

on the White Nile at Juba, Gondokoro, has remnant *Acacia* ssp. woodland that appears to be better preserved than elsewhere in the region. In places reedbeds and *Papyrus* spp. fringe the river; elsewhere there are vertical earth banks.

One further habitat type is formed by the occasional hills or 'jebels' that rise out of the otherwise rather flat landscape, including Jebel Kujur at the south-west edge of Juba, which reaches 716 m. These jebels have rocky outcrops, grasses and scattered trees.

There is one nominally protected area within the region: Juba Game Reserve, which includes Jebel Kujur. This site is an Important Bird Area, reportedly harbouring 23 species restricted to the Sudan-Guinea Savanna biome (Robertson 2001). However, the sides of the jebel are being quarried for stone and much of the surrounding land has been occupied for homes and farms. Just outside the study area is Badingilu National Park, *c.*60 km north-east of Juba in Jonglei State.

Climate

The study region has one long rainy season, from late April to November, with *c.*1,000 mm of rain per year in 1971–2000. Rainfall tends to be heavy but irregular, with a mean of 148.7 mm and 13 rainy days in July, the month of peak rainfall. July also experiences the lowest temperatures, with a mean low of 21.1°C and an average high of 31.1°C. Temperatures peak in March and early April, just before the rains, with a March mean low of 23.6°C and a mean high of 37.7°C. During the rainy season the dry, burnt land around Juba is transformed into a lush green landscape with some large areas of flooded tall grassland and marshes. Rainfall decreases in November and the dry season has very little rain; the land becomes arid with only a few remaining wet patches, such as in borrow pits by murram roads.

Methods

The main aim was to record the diversity and seasonality of birds in the study area. This was compromised by limitations on time available for field work, by safety and security considerations, and by access constraints. No field trips outside Juba were made during September–December 2010, May–July 2011 and December 2011. The main periods of absence from South Sudan included most of December 2010, December 2011 and the first three weeks of May 2012. Safety and security factors, including travel protocols and the risk posed by landmines, constrained movement outside Juba and more or less prevented movements outside the town after dark. In the middle and late rainy season, from July onwards, much of the savannah is covered in dense, tall grass and is hard to work. Marshier areas are impassable. Field work was biased towards easily accessible sites considered safe to visit. Badingilu National Park was not visited as it required an expedition-type approach for which I was unable to find time.

In all, I made 109 field trips involving *c*.450 hours of observations, of which 36 (33%) involved static birdwatching in the grounds of restaurants and hotels on the west bank of the White Nile in Juba; 32 (29%) were along the road north towards Terekeka; 13 (12%) were along the road south-southeast towards Nimule; ten (9%) were to sites on or very close to the east bank of the White Nile; five (5%) were along the Karpeto road, which runs south-southeast just beyond the bridge across the White Nile; and the remaining 13 (12%) were to seven other sites. In addition, I also made opportunistic observations whilst driving around Juba and from my house. On 23–26 April 2011, particularly intensive field work was undertaken north and south-east of Juba in the company of T. Jenner. I have included a few records provided by other, reliable observers. I took several thousand photographs of birds; these were used to resolve the identification of some species. A few poor-quality sound-recordings were made for the same purpose; these have not been lodged in an archive. Evidence of breeding such as display, nest building, copulation and feeding newly fledged young was recorded but intensive efforts to prove breeding were not made.

Results

I observed 323 species listed in Appendix 1 with maximum counts by month. In two cases subspecies are listed separately. Appendix 2 presents details of 36 additions to the relevant one-degree squares compared to Nikolaus (1987). To facilitate comparison with previous lists (e.g. de Bont 2009), sequence and taxonomy follows Dowsett *et al.* (2012), with some corrections of and updates to scientific names. Fuller details of four species new to South Sudan are presented separately (Mallalieu in press).

Species of conservation concern

South Sudan harbours 29 species of conservation concern (BirdLife International 2012). Eight of these were observed in the study area. Three are Endangered (White-backed Vulture *Gyps africanus*, Rüppell's Griffon Vulture *G. rueppellii* and Hooded Vulture *Necrosyrtes monachus*), two Vulnerable (White-headed Vulture *Trigonoceps occipitalis* and Beaudouin's Snake Eagle *Circaetus beaudouini*) and three Near Threatened (Pallid Harrier *Circus macrourus*, Bateleur *Terathopius ecaudatus* and Black-winged Pratincole *Glareola nordmanni*).

Biome-restricted species

Twenty species restricted to the Sudan-Guinea Savanna biome and seven restricted to the Somali-Masai biome were found. No species were recorded that are restricted to other biomes in South Sudan (Sahel, Guinea-Congo forests and Afrotropical Highlands). The total of 20 species from the Sudan-Guinea Savanna biome represents 55% of the total number of species (36) recorded from this biome in South Sudan, while the seven from the Somali-Masai biome represent just 14% of the 49 species recorded for that biome (Nikolaus 1989, Robertson 2001). These results contrast with those of de Bont (2009), whose study area 360 km east-northeast of Juba contained 37 species restricted to the Somali-Masai biome and six restricted to the Sudan-Guinea Savanna biome.

Notes on selected species

The following notes provide details mainly on the species of conservation concern and those for which status was found to be different from that in Nikolaus (1989). Additional species for the relevant one-degree squares (Nikolaus 1987) are listed only in Appendix 2 unless the range extension was large (a gap of at least two one-degree squares). Species of conservation concern are indicated by EN = Endangered, VU = Vulnerable and NT = Near Threatened.

Squacco Heron *Ardeola ralloides*

Recorded in May–July and early September 2012 in seasonal marshland 5 km north of Juba, including at least 50 in breeding plumage on 9 June (Fig. 8). These birds dispersed as feeding conditions became less suitable. It is probable that the species breeds in South Sudan. Nikolaus (1989) suggested that some birds might oversummer but did not mention possible breeding.

Black Heron *Egretta ardesiaca*
Five present intermittently on marshland 6 km north of Juba on 9 June–15 July 2012 (Fig. 9). Nikolaus (1989) mentions just five previous records for South Sudan.

African Cuckoo Hawk *Aviceda cuculoides*
An adult was observed on Gondokoro island on 25 March 2012. Second record for South Sudan. See Mallalieu (in press) for details.

European Honey Buzzard *Pernis apivorus*
One north of Juba on 23 April 2011, five *c.*30 km south-east of Juba on 24 April, and 25 moving north over the east bank of the White Nile at Juba on 29 April 2012, including a flock of 12. Nikolaus (1989) mentions only one record for South Sudan, but de Bont (2009) encountered this species on five occasions during spring migration and on eight occasions in autumn migration.

Bat Hawk *Macheiramphus alcinus*
One at dusk by the White Nile in Juba on 27 August 2012. Nikolaus (1989) gives three records for South Sudan, one of them at Juba. I also observed a Bat Hawk over the White Nile 45 km north-west of Nimule on 11 March 2012, which location is well south of the study area.

Hooded Vulture *Necrosyrtes monachus* EN
Present all year in and around Juba (Fig. 10), roosting in tall trees within the town. Largest numbers near abattoirs. Counts included 60 soaring over Juba on 23 October 2011; 85 over the town's western edge on 7 July 2012; and at least 100 over Juba on 25 August 2012. No nests found. Some evidence of people cutting large trees to discourage Hooded Vultures from roosting in them, but no direct persecution observed. No dead or sick birds were seen. Also regularly observed outside Juba, especially north of the town, but in very small numbers. Outside the study area, at least 150 were at a roost in Rumbek, Lakes State (06°48'N 29°40'E) on 29–30 November 2011, and 20 in Wau, Western Bahr el Ghazal State (07°41'N 28°00'E) on 18–19 April 2011.

White-backed Vulture *Gyps africanus* EN
A total of 18 records of up to six birds, mostly over Juba or over the road north to Terekeka, in the dry season, November–April, but also twice in August and once in September. One at the rubbish dump on the edge of Juba, with Hooded Vultures, on 25 April 2011 (Fig. 11). No evidence of breeding in the area.

Rüppell's Griffon Vulture *Gyps rueppellii* EN
Only four records, of up to four birds, all over or north of Juba. Once, from a light aircraft, I observed extensive white areas on a cliff north-east of Juba. This site may be located at 04°39'20"N 32°03'00"E, on the Juba–Torit road, adjacent to a village called Liria, where P. Winter (*in litt.* 2012) photographed cliff faces covered in white bird droppings, a feature also visible on Google Earth. It is possible that this is a roosting and / or breeding site for the species.

White-headed Vulture *Trigonoceps occipitalis* VU
A total of 17 records of up to seven birds, mainly north of Juba (Figs. 12–13). Noted in January–April, July, August and November, but most records were in the dry season, November–April. No evidence of breeding. Considered 'fairly common' by Nikolaus (1989).

Beaudouin's Snake Eagle *Circaetus beaudouini* VU
Nine records of singles, all along the road north to Terekeka, in the dry season, November–April. This species could be confused with Black-chested Snake Eagle *C. pectoralis* or Short-toed Snake Eagle *C. gallicus*. However, I took many photographs and am confident that these records relate to *C. beaudouini* (Fig. 14). All individuals had pure white underwing-coverts and underparts, apart from some neat pale grey-brown barring on the breast-sides, extending onto the axillaries. The underwing had darkish grey-brown subterminal bands on the remiges and three narrow grey-brown bars on the secondaries; the undertail had three similarly coloured bars. All individuals also had dull medium-brown hoods, with variable paler areas on the chin and foreneck. The upperwing had mid earth-brown coverts and darker, barred remiges. Adult *C. gallicus* has spotted or streaked underparts and dark markings on the underwing-coverts. Some juvenile *C.*

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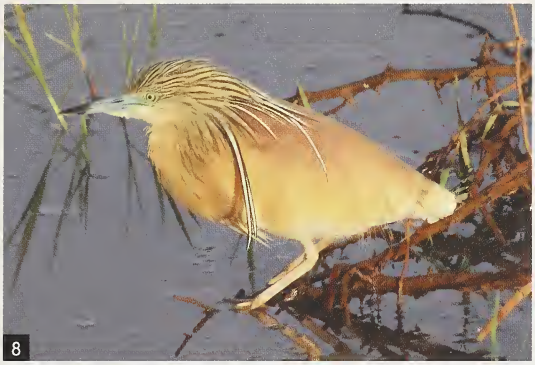

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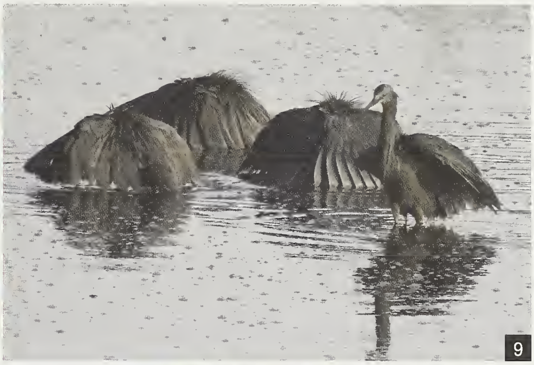

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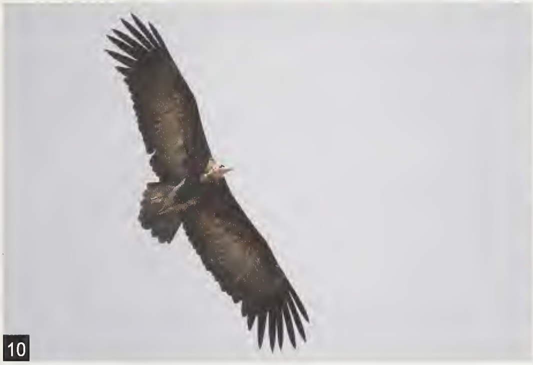

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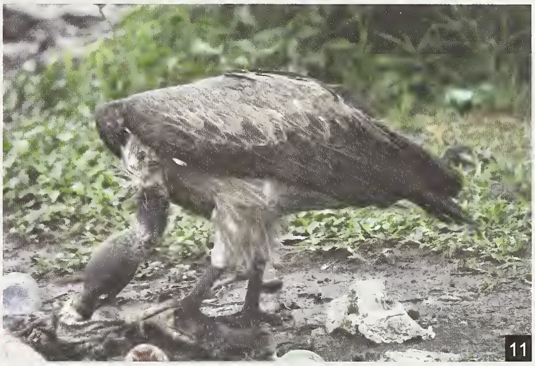

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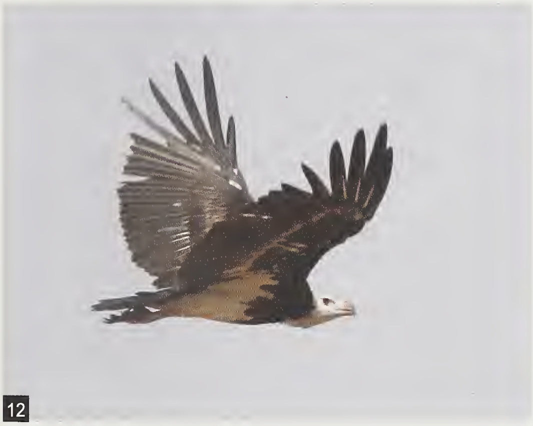

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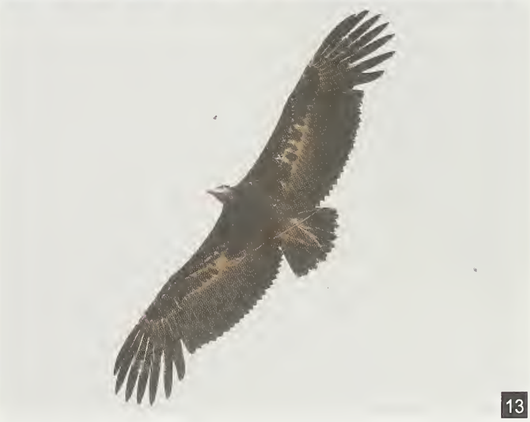


Figure 8. Squacco Heron / Crabier chevelu *Ardeola ralloides*, 6 km north of Juba, South Sudan, 9 June 2012 (M. Mallalieu)

Figure 9. Black Herons / Aigrettes ardoisées *Egretta ardesiaca*, 6 km north of Juba, South Sudan, 9 June 2012 (M. Mallalieu)

Figure 10. Hooded Vulture / Vautour charognard *Necrosyrtes monachus*, Juba, South Sudan, 26 September 2010 (M. Mallalieu)

Figure 11. White-backed Vulture / Vautour africain *Gyps africanus* at rubbish dump, Juba, South Sudan, 25 April 2011 (M. Mallalieu)

Figure 12. Adult White-headed Vulture / Vautour à tête blanche *Trigonoceps occipitalis*, 7 km north of Juba, South Sudan, 3 April 2011 (M. Mallalieu)

Figure 13. Immature White-headed Vulture / Vautour à tête blanche *Trigonoceps occipitalis*, 20 km north of Juba, South Sudan, 17 March 2012 (M. Mallalieu)

gallicus might be as pale as *C. beaudouini*, but they lack the dark subterminal bands on the underwing and typically have rufous-brown head markings (Forsman 1999). Adult *C. pectoralis* has darker and broader barring on the underwing and undertail, as well as a darker hood, upperparts and upperwing, and lacks barring on the underparts. Juvenile and immature *C. pectoralis* show varying amounts of rufous on the underparts (Ferguson-Lees & Christie 2001).

Bateleur *Terathopius ecaudatus* NT
Thirty records of up to four birds, in all months of field work except May. Seen over Juba and from roads north, west and south-east of Juba. Adults and immatures seen (Figs. 15–16) but no direct evidence of breeding.

Pallid Harrier *Circus macrourus* NT
One record: an adult male in open woodland 13 km south-southeast of Juba on 6 March 2011.

Wahlberg's Eagle *Aquila wahlbergi*
Seen frequently, usually alone (Fig. 17). Six along 14 km of road north of Juba on 27 November 2011 was the highest count. Present throughout the dry season but also recorded during the rains, in July–October. One near a possible nest in a large fig *Ficus* tree on Jebel Kujur on 11 August 2012. A pair just east of the White Nile on 18 August 2012. Nikolaus (1989) considers it a non-breeding visitor in December–April, but notes that it might breed in Eastern Equatoria State from Torit (*c.*100 km south-east of Juba) eastwards.

Eleonora's Falcon *Falco eleonorae*
One *c.*30 km south-east of Juba along the Nimule road on 24 April 2011. First sighting for South Sudan. See Mallalieu (in press) for details.

African Crake *Crex egregia*
One flushed at a marsh with low forbs, sedges and grasses, and scattered small acacias, 3 km north of Juba on 23 June 2012. Three flushed at the same site on 22 July. On 26 August, when the site had much denser and taller grass, footprints probably of this species were also seen. Breeding possible. Nikolaus (1989) regarded this species as rare, with records from Yei and Juba in July–September.

Figure 14. Adult Beaudouin's Snake Eagle / Circaète de Beaudouin *Circaetus beaudouini*, 20 km north of Juba, South Sudan, 17 March 2012 (M. Mallalieu)

Figure 15. Bateleur / Bateleur des savanes *Terathopius ecaudatus*, 40 km south-east of Juba, South Sudan, 23 April 2011 (Tom Jenner)

Figure 16. Immature Bateleur / Bateleur des savanes *Terathopius ecaudatus*, 15 km west of Juba, South Sudan, 21 April 2012 (M. Mallalieu)

Figure 17. Wahlberg's Eagle / Aigle de Wahlberg *Aquila wahlbergi*, 30 km south-east of Juba, South Sudan, 23 April 2011 (Tom Jenner)

Figure 18. Rock Pratincoles / Glaréoles auréolées *Glareola nuchalis*, White Nile 150 km south of Juba, South Sudan, 11 March 2012 (M. Mallalieu)

Figure 19. White-winged Terns / Guifettes leucoptères *Chlidonias leucopterus* migrating along White Nile, Juba, South Sudan, 29 April 2012 (M. Mallalieu)

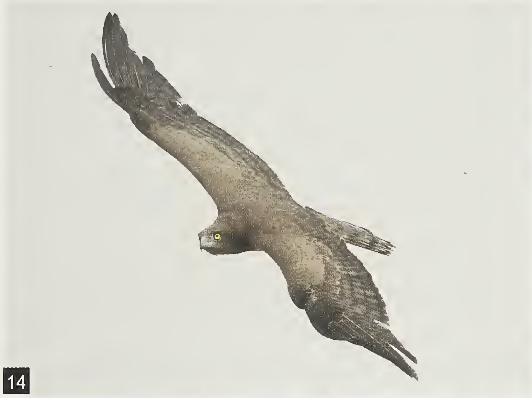
Figure 20. Lesser Grey Shrike / Pie-grièche à poitrine rose *Lanius minor*, 15 km south-east of Juba, South Sudan, 14 April 2012 (M. Mallalieu)

Lesser Moorhen *Gallinula angulata*
One flushed from a small pond in light woodland along the Karpeto road 5 km south-east of Juba on 16 June 2012. One in marshland 2.5 km north of Juba on 1 July 2012. Nikolaus (1989) mentions only three locations, all west or south of Juba.

Black-winged Pratincole *Glareola nordmanni* NT
A flock of 41 flew north-east *c.*15 km north of Juba on 23 April 2011.

Rock Pratincole *Glareola nuchalis*
Up to six in March, April, July and August at the White Nile in Juba, where perhaps resident (Fig. 18). Outside the study area, at least 200 during a rafting trip along 80 km of the White Nile north from Nimule. Clearly common along the White Nile from the Ugandan border at least as far as Juba, yet Nikolaus (1989) mentions only two old records for South Sudan, both from the White Nile, at Nimule and *c.*70 km north of Juba.

White-winged Tern *Chlidonias leucopterus*
Seen on passage in late August, September and late April. Migration routes are not restricted to the White Nile as birds were seen moving overland well away from there, but the largest counts were of birds moving along the river, e.g.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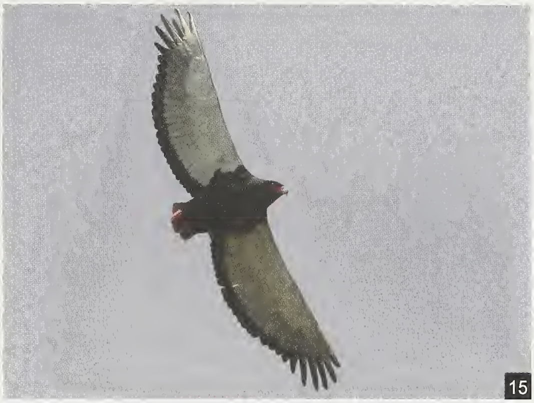
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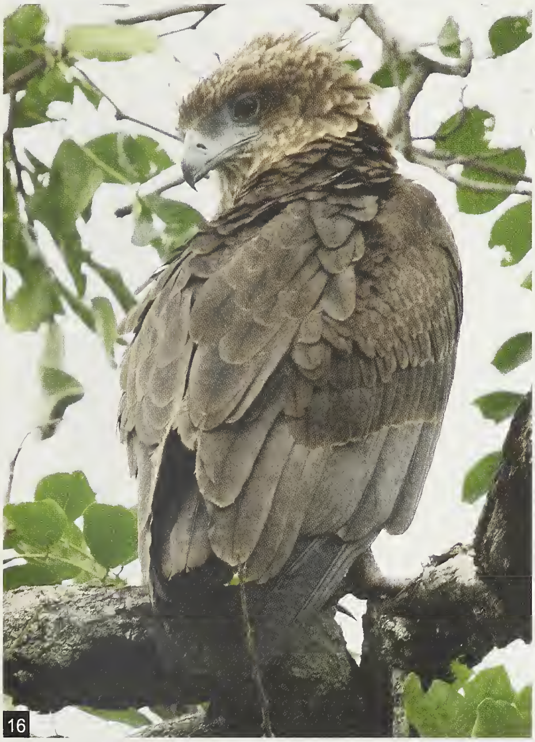
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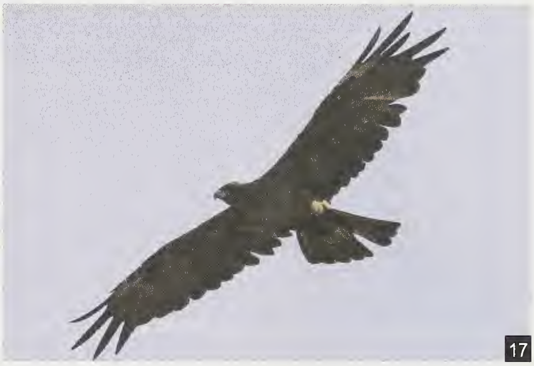
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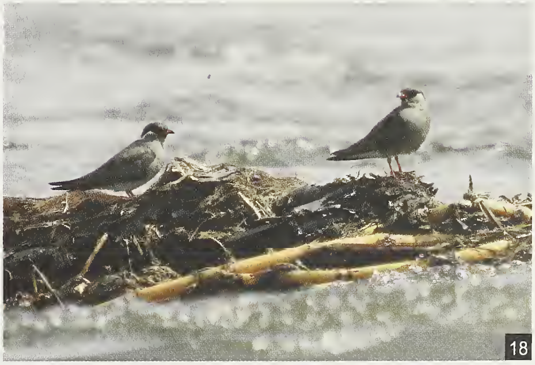
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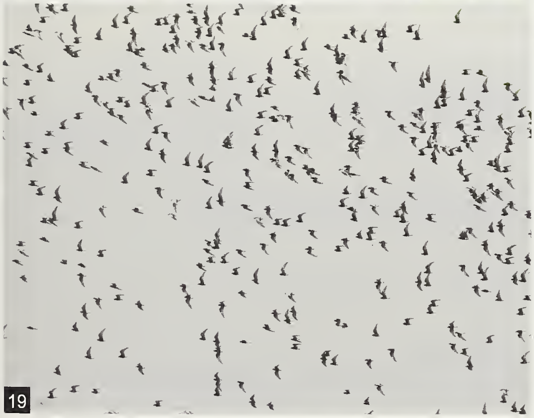
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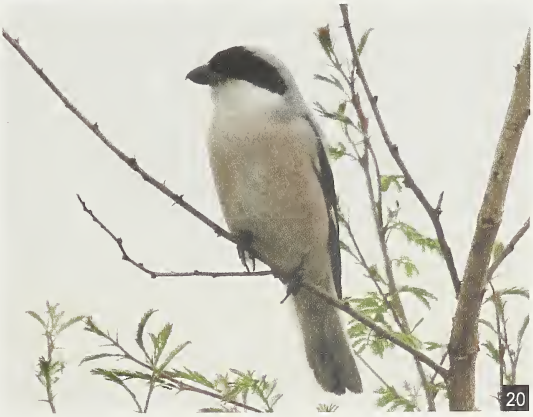
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63 upriver in two hours from 15:45 hrs on 11 September 2011 and a larger movement of 6,000 in six flocks during three hours from 12:30 hrs on 29 April 2012, the largest flock containing *c.*2,000 birds (Fig. 19).

Klaas's Cuckoo *Chrysococcyx klaas*
Recorded singing in April, July and August. Nikolaus (1989) considered it a dry-season visitor.

Icterine Warbler *Hippolais icterina*
One *c.*25 km south-east of Juba on 24 April 2011. First record for South Sudan. See Mallalieu (in press) for details.

Swamp Flycatcher *Muscicapa aquatica*
One in reeds along a channel of the White Nile in Juba on 13 March 2011; this is *c.*300 km south-east of the nearest record in Nikolaus (1987).

Grey-headed Batis *Batis orientalis* **/ Western Black-headed Batis** *B.* (*minor*) *erlangeri*
These species, both known to occur in South Sudan, are difficult to separate. All batises seen had grey crowns; several that were heard only were considered to be *B. orientalis*, after comparing the song with online sound-recordings. Several individuals were photographed, but even after reference to the available literature, could not be ascribed with certainty to one species. According to Nikolaus (1989) both species are 'fairly common' in South Sudan.

Lesser Grey Shrike *Lanius minor*
One 30 km south-east of Juba on 24 April 2011; one 15 km north of Juba on 22 October 2011; 12, including four together, along 15 km of the Nimule road south-east of Juba on 14 April 2012 (Fig. 20); and one 25 km west of Juba on 21 April 2012. Described by Nikolaus (1989) as an 'uncommon to rare... migrant'. De Bont (2009) also recorded this species in April.

Yellow-billed Oxpecker *Buphagus africanus*
Only one seen, 18 km north of Juba, on 12 August 2012. Nikolaus (1989) reports this species as fairly common in association with cattle and game.

Figure 21. Abdim's Storks / Cigognes d'Abdim *Ciconia abdimii* over Juba, South Sudan, 5 November 2011 (M. Mallalieu)

Figure 22. Grasshopper Buzzard / Busautour des sauterelles *Butastur rufipennis*, 6 km south-east of Juba, South Sudan, 29 January 2011 (M. Mallalieu)

Figure 23. Bruce's Green Pigeon / Colombar waalia *Treron waalia*, 6 km north of Juba, South Sudan, 1 September 2012 (M. Mallalieu)

Figure 24. Green-backed Eremomela / Érémomèle grisonnante *Eremomela canescens*, 25 km west of Juba, South Sudan, 19 March 2011 (M. Mallalieu)

Figure 25. Winding Cisticola / Cisticole roussâtre *Cisticola galactotes*, 6 km north of Juba, South Sudan, 24 June 2012 (M. Mallalieu)

Figure 26. Red-pate Cisticola / Cisticole à tête rousse *Cisticola ruficeps*, 10 km north of Juba, South Sudan, 24 June 2012 (M. Mallalieu)

Figure 27. Emin's Shrike / Pie-grièche à dos roux *Lanius gubernator*, 25 km west of Juba, South Sudan, 19 March 2011 (M. Mallalieu)

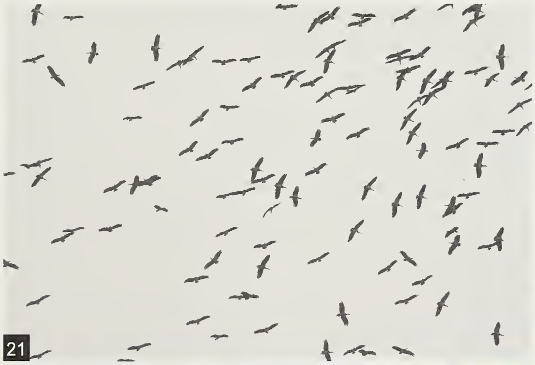
Figure 28. Piapiac / Piapiac africain *Ptilostomus afer*, Juba, South Sudan, 14 July 2012 (M. Mallalieu)

Figure 29. Bronze-tailed Glossy Starling / Choucador à queue violette *Lamprotornis chalcurus*, 5 km south-east of Juba, South Sudan, 14 July 2012 (M. Mallalieu)

Figure 30. Cardinal Quelea / Travailleur cardinal *Quelea cardinalis*, 8 km south-east of Juba, South Sudan, 4 August 2012 (M. Mallalieu)

White-winged Widowbird *Euplectes albonotatus eques*
Males in breeding plumage observed near Juba on 28 July and 4 August 2012. First records for South Sudan. See Mallalieu (in press) for details.

Indigobird *Vidua* spp.
Besides Village Indigobirds *Vidua chalybeata*, one or more other indigobird species were observed on several occasions in August and September. They had white bills, pale dull pink or purplish-pink legs, brown flight feathers and a bluish-purple gloss to the body feathers. Considering the distribution of host species and bearing in mind the limited data on the distribution of some indigobirds (Payne 2010), these birds could have been Cameroon *V. camerunensis*, Barka *V. larvaticola*, Quailfinch *V. nigeriae*, Jambandu *V. raricola* or Wilson's Indigobirds *V. wilsoni*, with the last-named the most likely based on previous records (Nikolaus 1989) and plumage gloss (Payne 2010). However,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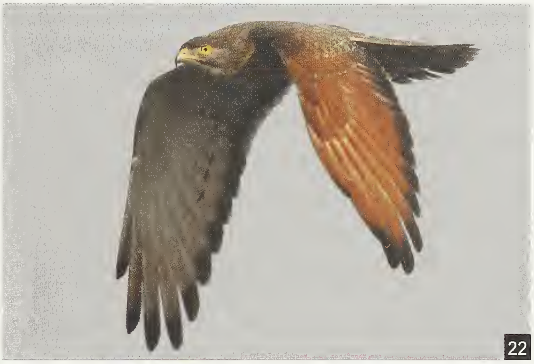
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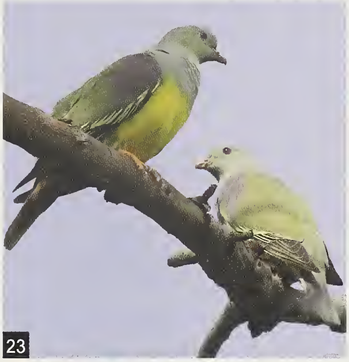
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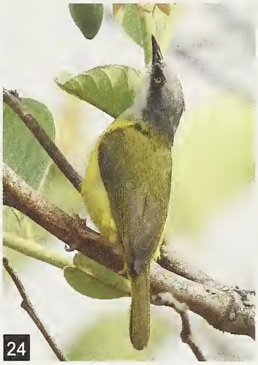
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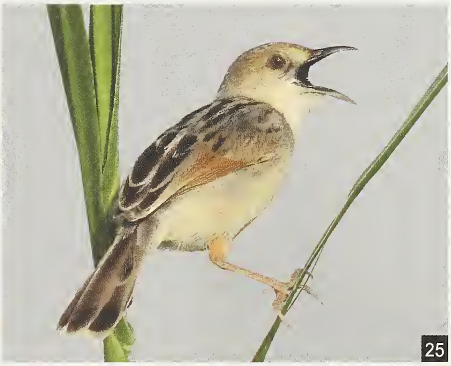
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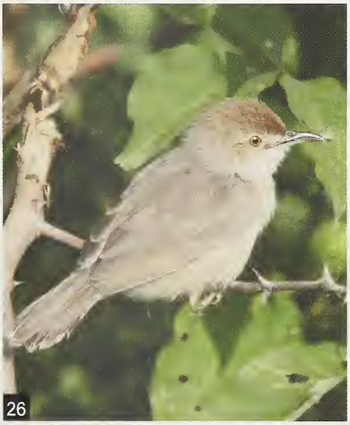
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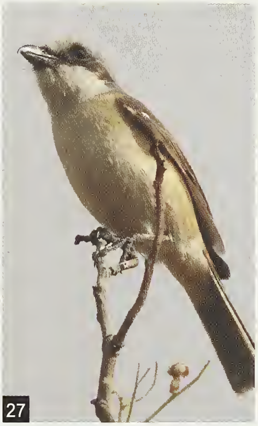
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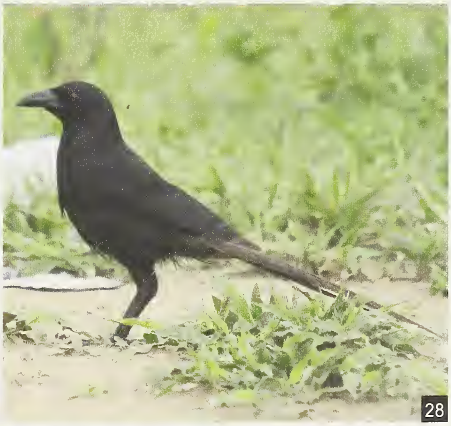
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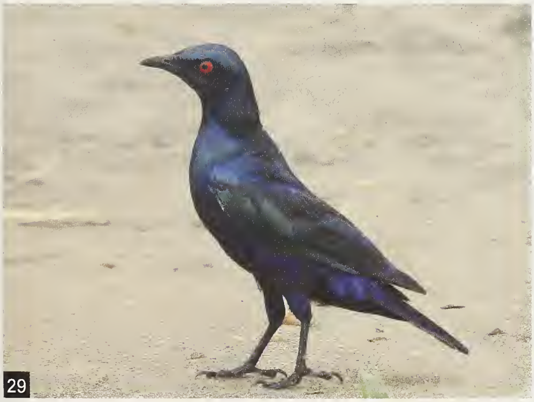
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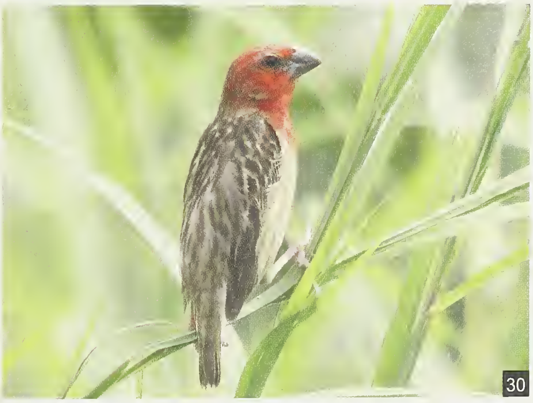
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based on the presence of host species present around Juba, any of these five *Vidua* species could occur. No sound-recordings were made.

Discussion

For the reasons stated above, this study will have understated the number of species that occur regularly in the study area. This is especially true for largely nocturnal species such as owls and nightjars, for some species that inhabit dense grassland and marshes, for those confined to the west and south of Juba, which areas were seldom visited, as well as for others that are highly localised, or occur at low densities. Indications of abundance in Appendix 1 should be treated cautiously as this study did not systematically cover all of the main habitats. For example, although there was only one observation of Red-winged Starling *Onychognathus morio*, made during the single visit to Jebel Kujur, this species may well be resident there. The limited number or absence of field trips in certain months means that Appendix 1 shows no counts for many species that would have been present.

The most serious environmental issue affecting bird populations around Juba is probably extraction of wood for fuel, including through charcoal-making. The increasing human population of Juba will have placed increased pressure on woodland in the south of the country accessible from the town, although the lack of an extensive road network may be a mitigating factor. Nikolaus (1987) includes many species in the two one-degree squares of the study area that were not found by me, and some species considered common by Nikolaus were seldom or never encountered. However, the nature of this study means that it was impossible to form any evidence-based view on the impact of wood extraction on bird populations. Hunting pressure may also have had an impact on some species, although there was no clear evidence for this. The increase in land under cultivation and expansion of the built-up area of Juba will adversely affect some species very locally.

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Appendix 1. Bird species recorded around Juba, South Sudan, 12 September 2010–1 September 2012

Annexe 1. Espèces d'oiseaux obsevées autour de Juba, Soudan du Sud, 12 septembre 2010–1 septembre 2012

Biome (Robertson *in* Fishpool & Evans 2001):

SG = Restricted to the Sudan-Guinea biome (20 species) / espèces confinées au biome de la Savane soudano-guinéenne (20 espèces)

SM = Restricted to the Somali-Masai biome (7 species) / espèces confinées au biome Somali-Masai (7 espèces)

▨ = Evidence of breeding noted / Preuve de reproduction obtenue

Sequence and taxonomy follows Dowsett *et al.* (2012) with a few amendments.

L'ordre et la taxonomie suivent Dowsett *et al.* (2012) avec quelques amendements.

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Phalacrocoracidae																
Reed Cormorant	*Phalacrocorax africanus*		82	45	5	30	10	30	25	15	30	5	6	50		
Anhingidae																
African Darter	*Anhinga rufa*			–	–	1	–	–	–	–	–	–	–	–		
Pelecanidae																
Pink-backed Pelican	*Pelecanus rufescens*		3	–	4	2	–	–	–	1	–	–	–	–		
Ardeidae																
Little Bittern	*Ixobrychus minutus*		–	–	–	–	–	–	–	1	–	–	–	–		x
Black-crowned Night Heron	*Nycticorax nycticorax*		–	1	1	1	–	2	–	–	–	–	–	–		
Squacco Heron	*Ardeola ralloides*		2	2	3	–	1	50	20	15	–	–	1	2		
Cattle Egret	*Bulbulcus ibis*		1,230	200	600	500	30	30	30	150	80	60	200	300		
Striated Heron	*Butorides striatus*		–	1	2	2	2	1	4	15	8	6	–	–		
Black Heron	*Egretta ardesiaca*		–	–	–	–	–	5	5	–	–	–	–	–		x
Little Egret	*Egretta garzetta*		1	1	4	20	–	50	10	–	2	–	–	–		
Intermediate Egret	*Egretta intermedia*		1	–	–	1	–	5	5	–	–	–	–	–		
Great Egret	*Egretta alba*		1	–	–	30	–	25	2	2	1	–	–	–		
Purple Heron	*Ardea purpurea*		2	–	3	1	1	9	5	5	10	3	–	3		
Grey Heron	*Ardea cinerea*		3	1	–	4	–	2	2	–	–	1	2	1		
Black-headed Heron	*Ardea melanocephala*		5	3	6	12	1	2	–	2	–	–	–	4		
Goliath Heron	*Ardea goliath*		–	–	1	1	–	1	1	–	–	–	–	–		
Scopidae																
Hamerkop	*Scopus umbretta*		1	2	6	8	–	1	2	1	6	1	1	–		
Ciconiidae																
Yellow-billed Stork	*Mycteria ibis*		6	7	15	10	–	2	–	–	–	–	3	–		
African Openbill	*Anastomus lamelligerus*		10	6	5	350	10	10	20	4	–	–	–	1		
Abdim's Stork	*Ciconia abdimii*		–	–	14	1,000	–	–	–	–	–	–	450	–		
Woolly-necked Stork	*Ciconia episcopus*		–	–	2	6	–	–	–	–	–	–	–	–		x
White Stork	*Ciconia ciconia*		–	–	–	–	–	–	–	–	–	3	–	–		x
Saddle-billed Stork	*Ephippiorhynchus senegalensis*		–	–	–	2	–	–	2	–	2	–	–	–		x
Marabou Stork	*Leptoptilos crumenifer*		50	350	100	500	25	20	10	40	30	65	120	–		
Threskiornithidae																
Hadada Ibis	*Bostrychia hagedash*		2	2	2	10	1	6	2	6	1	–	–	4		
Sacred Ibis	*Threskiornis aethiopicus*		92	15	110	30	20	10	15	4	–	–	3	–		
Eurasian Spoonbill	*Platalea leucorodia*		–	–	1	–	–	–	–	–	–	–	–	–		x
African Spoonbill	*Platalea alba*		–	–	6	1	–	2	4	–	–	–	–	–		
Anatidae																

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Fulvous Whistling Duck	*Dendrocygna bicolor*		–	–	60	–	–	–	–	–	–	–	–	–		
White-faced Whistling Duck	*Dendrocygna viduata*		11	2	10	25	–	60	50	15	5	10	–	45		
Spur-winged Goose	*Plectopterus gambensis*		–	–	15	200	–	100	100	20	–	–	–	–		
Comb Duck	*Sarkidiornis melanotos*		12	2	300	300	–	25	25	2	–	–	–	–		
Accipitridae																
Osprey	*Pandion haliaetus*		–	–	1	–	–	–	–	–	1	–	–	–		x
African Cuckoo Hawk	*Aviceda cuculoides*		–	–	1	–	–	–	–	–	–	–	–	–		x
European Honey Buzzard	*Pernis apivorus*		–	–	–	25	–	–	–	–	–	–	–	–	– / 29 Apr	
Bat Hawk	*Macheiramphus alcinus*		–	–	–	–	–	–	–	1	–	–	–	–		x
Black-shouldered Kite	*Elanus caeruleus*		2	2	3	2	1	1	1	1	1	2	1	–		
Black Kite	*Milvus migrans migrans*		–	–	1?	1?	–	–	–	–	–	–	–	–		x
Yellow-billed Kite	*Milvus migrans parasitus*		100	100	50	400	–	15	10	4	1	60	200			
African Fish Eagle	*Haliaeetus vocifer*		–	–	–	2	–	1	–	1	1	–	–	–		
Hooded Vulture	*Necrosyrtes monachus*		5	15	15	5	5	30	85	100	15	60	30	–		
White-backed Vulture	*Gyps africanus*		5	6	3	6	–	–	–	3	1	–	2	–		
Rüppell's Vulture	*Gyps rueppellii*		–	1	–	4	–	–	–	2	–	–	–	–		x
White-headed Vulture	*Trigonoceps occipitalis*		2	7	1	2	–	–	3	2	–	–	1	–		
Beaudouin's Snake Eagle	*Circaetus beaudouini*		1	1	1	1	–	–	–	–	–	–	1	–		
Brown Snake Eagle	*Circaetus cinereus*		–	–	1	1	–	–	–	1	–	–	–	–		x
Western Banded Snake Eagle	*Circaetus cinerascens*		–	–	1	1	–	1	–	1	–	–	–	–		
Bateleur	*Terathopius ecaudatus*		1	1	4	20	–	1	1	3	1	3	1	–		
African Harrier Hawk	*Polyboroides typus*		–	–	1	4	–	–	1	1	1	–	–	–		
Pallid Harrier	*Circus macrourus*		–	–	1	–	–	–	–	–	–	–	–	–		
Montagu's Harrier	*Circus pygargus*		1	–	–	–	–	–	–	–	–	–	–	–		x
Western Marsh Harrier	*Circus aeruginosus*		5	1	3	1	–	–	–	–	–	–	–	1	11 Dec / 8 Apr	
Gabar Goshawk	*Micronisus gabar*		2	2	2	2	–	–	1	–	1	–		–		
Dark Chanting Goshawk	*Melierax metabates*		10	4	4	8	–	5	4	15	5	8	4	1		
Shikra	*Accipiter badius*		2	2	2	2	2	1	1	1	1	1	1	2		
Grasshopper Buzzard	*Butastur rufipennis*		8	8	8	30	–	–	–	–	1	–	5	–		
Common Buzzard	*Buteo buteo vulpinus*		1	2	5	15	–	–	–	–	1	2	2	1	30 Sep / 24 Apr	
Long-legged Buzzard	*Buteo rufinus*		–	–	–	–	–	–	–	–	–	–	–	2		x
Red-necked Buzzard	*Buteo auguralis*		–	–	–	1	–	–	–	–	–	–	–	–		x
Tawny Eagle	*Aquila rapax*		–	2	1	4	–	–	–	–	–	1	1	–		
Steppe Eagle	*Aquila nipalensis*		2	30	5	5	–	–	–	–	–	–	–	–	– / 24 Apr	
Wahlberg's Eagle	*Aquila wahlbergi*		2	2	–	3	–	–	1	2	2	1	6	–		
African Hawk Eagle	*Hieraaetus spilogaster*		–	–	–	1	–	–	–	–	–	–	–	–		x
Booted Eagle	*Hieraaetus pennatus*		1	1	–	–	–	–	–	–	–	1	–	–		x
Long-crested Eagle	*Lophaetus occipitalis*		1	2	2	2	–	2	2	3	2	2	1	1		
Falconidae																
Common Kestrel	*Falco tinnunculus rufescens*		–	–	1	–	–	–	–	2	–	1	–	–		
Common (Eurasian) Kestrel	*Falco t. tinnunculus*		2	3	3	1	–	–	–	–	–	–	–	–	– / 14 Apr	
Fox Kestrel	*Falco alopex*	SG	–	–	–	3	–	–	–	–	–	–	–	–		x
Grey Kestrel	*Falco ardosiaceus*		1	1	1	3	1	–	–	2	3	1	1	–		
Red-necked Falcon	*Falco chicquera*		4	2	4	1	1	2	1	3	2	3	1	1		

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Eleonora's Falcon	*Falco eleonorae*		–	–	–	1	–	–	–	–	–	–	–	–		x
Eurasian Hobby	*Falco subbuteo*		–	–	–	1	–	–	–	–	–	1	–	–	15 Oct / 28 Apr	
Lanner Falcon	*Falco biarmicus*		3	–	1	1	–	–	–	–	–	2	2	–		
Peregrine Falcon	*Falco peregrinus*		–	1	1	1	–	–	–	–	–	–	–	1	5 Dec / 2 Apr	x
Numididae																
Helmeted Guineafowl	*Numida meleagris*		20	30	25	10	–	20	15	4	2	–	–	–		
Phasianidae																
Crested Francolin	*Dendroperdix sephaena*		4	–	3	10	–	5	2	5	1	–	–	–		
Rallidae																
African Crake	*Crex egregia*		–	–	–	–	–	1	3	–	–	–	–	–		x
Black Crake	*Amaurornis flavirostris*		–	–	2	2	–	–	1	–	–	–	–	–		x
Lesser Moorhen	*Gallinula angulata*		–	–	–	–	–	1	1	–	–	–	–	–		x
Otididae																
Black-bellied Bustard	*Lissotis melanogaster*		–	–	–	1	–	1	3	2	–	1	–	–		
Jacanidae																
African Jacana	*Actophilornis africanus*		2	1	10	5	–	20	10	4	3	–	2	–		
Rostratulidae																
Greater Painted-snipe	*Rostratula benghalensis*		–	–	–	–	–	1	1	–	–	–	–	–		x
Recurvirostridae																
Black-winged Stilt	*Himantopus himantopus*		4	5	3	10	–	10	3	–	–	–	–	–		
Burhinidae																
Senegal Thick-knee	*Burhinus senegalensis*		–	–	3	5	–	–	2	2	–	–	–	1		
Spotted Thick-knee	*Burhinus capensis*		–	1	2	1	–	–	–	–	–	–	–	–		x
Glareolidae																
Collared Pratincole	*Glareola pratincola*		–	–	–	–	–	1	–	–	–	–	–	–		x
Black-winged Pratincole	*Glareola nordmanni*		–	–	–	41	–	–	–	–	–	–	–	–		x
Rock Pratincole	*Glareola nuchalis*		–	–	2	6	–	–	2	1	–	–	–	–		
Charadriidae																
Little Ringed Plover	*Charadrius dubius*		–	1	1	–	–	–	–	–	–	–	–	–		x
Common Ringed Plover	*Charadrius hiaticula*		–	–	–	1	–	–	–	–	–	–	–	–		x
African Wattled Lapwing	*Vanellus senegallus*		40	30	10	3	–	6	2	2	–	2	3	–		
Black-headed Lapwing	*Vanellus tectus*		3	7	6	5	–	5	–	6	3	4	4	6		
Spur-winged Plover	*Vanellus spinosus*		10	1	2	4	–	10	15	2	4	1	2	1		
Long-toed Lapwing	*Vanellus crassirostris*		–	–	–	–	–	–	4	–	1	–	–	–		x
Scolopacidae																
Temminck's Stint	*Calidris temminckii*		–	–	–	–	–	–	–	–	–	1	–	–		x
Curlew Sandpiper	*Calidris ferruginea*		–	–	–	1	–	–	–	–	–	–	–	–		x
Ruff	*Philomachus pugnax*		–	–	–	40	–	–	–	–	–	–	–	–		x
Common Snipe	*Gallinago gallinago*		1	–	–	–	–	–	–	–	–	–	–	–		x
Greenshank	*Tringa nebularia*			1	2	2	–	2	1	–	–	1	–	–	oversummered	
Green Sandpiper	*Tringa ochropus*		3	2	6	1	–	–	–	2	–	1	1	1	17 Aug / 23 Apr	

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Wood Sandpiper	*Tringa glareola*		2	1	4	20	–	–	–	–	–	3	2	2	9 Oct / 28 Apr	
Common Sandpiper	*Actitis hypoleucos*		20	6	4	3	–	–	2	6	6	15	–	1	29 Jul / 29 Apr	
Laridae																
Common Black-headed Gull	*Chroicocephalus ridibundus*		–	–	1	–	–	–	–	–	–	–	–	–		x
Lesser Black-backed Gull	*Larus fuscus fuscus*		–	–	–	–	–	–	–	–	24	–	–	–		x
Sternidae																
Gull-billed Tern	*Gelochelidon nilotica*		–	–	15	8	–	–	–	–	18	4	–	21		
Whiskered Tern	*Chlidonias hybrida*		–	–	–	9	–	–	–	–	–	–	–	–		
White-winged Tern	*Chlidonias leucopterus*		–	–	–	6,000	–	–	–	14	63	–	–	–	26 Aug / 29 Apr	
Pteroclidae																
Four-banded Sandgrouse	*Pterocles quadricinctus*		–	–	2	–	–	–	–	–	–	–	–	–		
Columbidae																
Bruce's Green Pigeon	*Treron waalia*		4	15	6	2	3	1	15	15	15	4	2	–		
Black-billed Wood Dove	*Turtur abyssinicus*		15	10	50	50	5	20	5	30	20	10	5	1		
Namaqua Dove	*Oena capensis*		5	20	30	4	–	–	–	5	2	6	1	–		
African Mourning Dove	*Streptopelia decipiens*		15	50	100	30	–	20	25	20	15	10	5	20		
Vinaceous Dove	*Streptopelia vinacea*		100	50	50	20	–	30	40	20	60	25	10	–		
Laughing Dove	*Streptopelia senegalensis*		–	30	6	–	–	–	1	5	–	–	–	–		
Psittacidae																
Meyer's Parrot	*Poicephalus meyeri*		–	–	2	–	–	–	–	–	2	–	–	–		
Rose-ringed Parakeet	*Psittacula krameri*		1	–	2	6	–	4	10	5	4	6	3	–		
Musophagidae																
White-crested Turaco	*Tauraco leucolophus*	SG	–	2	–	2	–	–	–	–	–	–	–	–		x
Eastern Grey Plantain-eater	*Crinifer zonorus*		–	10	3	2	–	2	1	3	–	–	–	–		
Cuculidae																
Jacobin Cuckoo	*Clamator jacobinus*		–	–	–	1	–	–	2	1	1	1	–	–		
Levaillant's Cuckoo	*Clamator levaillantii*		–	–	–	2	–	–	–	1	–	–	–	–		x
Red-chested Cuckoo	*Cuculus solitarius*		–	–	–	4	3	4	2	3	1	1	–	–		
African Cuckoo	*Cuculus gularis*		–	–	–	1	–	–	–	–	–	–	–	–		x
Klaas's Cuckoo	*Chrysococcyx klaas*		–	–	–	1	–	–	2	2	–	–	–	–		
Dideric Cuckoo	*Chrysococcyx caprius*		–	–	–	–	–	2	2	4	2	1	–	–		
White-browed Coucal	*Centropus superciliosus*		1	2	1	–	–	–	1	2	8	4	2	–		
Black Coucal	*Centropus grillii*		–	–	–	–	–	–	6	2	–	–	–	–		
Senegal Coucal	*Centropus senegalensis*		2	8	2	10	5	2	2	3	2	1	1	1		
Blue-headed Coucal	*Centropus monachus*		2	–	–	–	–	2	–	2	–	–	–	–		
Tytonidae																
Barn Owl	*Tyto alba*		–	–	–	–	–	1	1	–	1	–	–	–		
Strigidae																
African Scops Owl	*Otus senegalensis*		–	–	–	–	–	–	–	–	–	1	–	–		
Greyish Eagle Owl	*Bubo cinerascens*		–	–	1	1	1	–	–	1	–	1	–	–		
Caprimulgidae																
Slender-tailed Nightjar	*Caprimulgus clarus*		–	–	–	2	–	–	–	–	–	–	–	–		x

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Standard-winged Nightjar	*Macrodipteryx longipennis*		–	–	–	1	–	–	–	–	–	–	–	–		x
Pennant-winged Nightjar	*Macrodipteryx vexillarius*		–	–	–	–	1	–	1	–	–	–	–	–		x
Apodidae																
African Palm Swift	*Cypsiurus parvus*		10	100	50	50	–	6	20	20	100	20	–	–		
Common Swift	*Apus apus*		–	1	6	300	–	–	–	50	100	–	–	–	11 Aug / 24 Apr	
White-rumped Swift	*Apus caffer*		–	–	–	8	–	7	4	15	–	–	–	–		
Little Swift	*Apus affinis*		–	5	50	50	2	20	50	30	–	–	10	1		
Alpine Swift	*Apus melba*		–	–	–	30	–	–	–	–	–	10	50	–	30 Oct / 24 Apr	
Coliidae																
Blue-naped Mousebird	*Urocolius macrourus*		20	30	30	15	15	15	5	15	10	25	–	–		
Speckled Mousebird	*Colius striatus*		10	30	30	8	5	2	20	5	10	1	6	1		
Alcedinidae																
Grey-headed Kingfisher	*Halycon leucocephala*		–	5	10	8	–	3	2	3	1	1	–	2		
Woodland Kingfisher	*Halycon senegalensis*		–	–	1	3		2	1	1	–	–	–	–		
Striped Kingfisher	*Halycon chelicuti*		1	1	1	2	–	–	–	–	–	–	–	–		
African Pygmy Kingfisher	*Ceyx pictus*		–	1	–	4	–	1	1	1	–	–	–	–		
Malachite Kingfisher	*Alcedo cristata*		–	1	8	–	–	3	2	2	1	2	–	1		
Giant Kingfisher	*Megaceryle maxima*		1	1	1	–	1	–	1	–	–	1	–	–		
Pied Kingfisher	*Ceryle rudis*		1	1	6	3	–	8	2	1	2	3	–	1		
Meropidae																
Little Bee-eater	*Merops pusillus*		–	–	4	–	–	–	–	1	–	–	–	–		
Swallow-tailed Bee-eater	*Merops hirundineus*		–	1	–	3	1	–	–	1	–	–	–	–		
Red-throated Bee-eater	*Merops bulocki*	SG	–	–	6	–	–	–	1	5	–	–	–	–		
Little Green Bee-eater	*Merops orientalis*		1	5	–	–	–	–	–	–	–	–	–	–		x
Blue-cheeked Bee-eater	*Merops persicus*		–	10	–	100	–	–	–	–	–	–	–	–		
Madagascar Bee-eater	*Merops superciliosus*		–	–	–	–	–	–	–	–	6	–	–	–		x
European Bee-eater	*Merops apiaster*		–	–	–	8	–	–	–	–	15	–	–	–	10 Sep / 24 Apr	x
Northern Carmine Bee-eater	*Merops nubicus*		2	15	6	10	1	10	8	20	20	6	5	–		
Coraciidae																
Rufous-crowned Roller	*Coracias naevius*		–	–	–	1	–	–	–	–	–	–	–	–		x
Abyssinian Roller	*Coracias abyssinicus*		4	1	2	2	–	–	–	–	–	–	–	–		
Phoeniculidae																
Green Wood-hoopoe	*Phoeniculus purpureus*		–	–	–	8	–	–	–	–	–	–	–	–		x
Abysinnian Scimitarbill	*Rhinopomastus minor*	SM	–	1	2	1	–	–	–	–	–	–	–	–		
Black Scimitarbill	*Rhinopomastus aterrimus*		–	1	1	2	–	1	–	–	–	–	–	–		
Upupidae																
Eurasian Hoopoe	*Upupa epops epops*		–	1	1	–	–	–	–	–	–	–	–	–		x
Bucerotidae																
Red-billed Hornbill	*Tockus erythrorhynchus*		2	1	2	10	–	4	1	2	1	–	–	–		
African Grey Hornbill	*Tockus nasutus*		2	4	6	6	1	3	4	15	8	6	–	–		
Capitonidae																
Yellow-fronted Tinkerbird	*Pogoniulus chrysoconus*		–	–	–	1	–	–	–	1	–	–	–	–		x

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Red-fronted Barbet	*Tricholaema diademata*		1	2	1	1	–	1	2	3	–	–	–	–		
White-headed Barbet	*Lybius leucocephalus*		–	–	–	1	–	–	–	–	–	–	2	–		x
Black-billed Barbet	*Lybius guifsobalito*		2	1	3	5	1	–	1	1	–	–	–	–		
Black-breasted Barbet	*Lybius rolleti*	SG	–	2	–	–	–	–	2	–	–	2	–	–		
D'Arnaud's Barbet	*Trachyphonus darnaudii*	SM	10	10	10	10	–	5	4	6	10	4	5	–		
Indicatoridae																
Greater Honeyguide	*Indicator indicator*		1	1	1	1	–	–	1	–	–	1	–	–		
Lesser Honeyguide	*Indicator minor*		–	–	2	1	–	1	1	1	1	–	–	–		
Picidae																
Nubian Woodpecker	*Campethera nubica*		–	3	3	2	1	–	2	2	–	2	–	–		
Cardinal Woodpecker	*Dendropicos fuscescens*		–	–	–	–	–	–	–	–	2	–	–	–		x
Grey Woodpecker	*Dendropicos goertae*		1	3	–	1	–	–	2	1	–	–	–	–		
Alaudidae																
Flappet Lark	*Mirafra rufocinnamomea*		–	–	1	6	3	1	–	8	2	3	–	–		
Sun Lark	*Galerida modesta*	SG	–	1	–	–	3	–	–	3	1	–	–	–		
Chestnut-backed Sparrow Lark	*Eremopterix leucotis*		–	–	–	–	–	–	–	–	–	–	–	20		x
Hirundinidae																
Plain Martin	*Riparia paludicola*		–	–	–	–	–	–	–	2	–	–	–	–		x
Common Sand Martin	*Riparia riparia*		–	1	100	100	20	–	–	–	25	30	50	–	10 Sep / 14 May	
Rufous-chested Swallow	*Cecropis semirufa*		2	–	–	6	–	2	2	–	–	–	–	–		
Red-rumped Swallow	*Cecropis daurica*		–	2	–	–	–	–	5	4	–	–	–	–		x
Wire-tailed Swallow	*Hirundo smithii*		1	4	1	–	–	–	2	2	2	6	1	–		
Ethiopian Swallow	*Hirundo aethiopica*		15	1	–	15	–	6	10	6	1	–	–	20		
Barn Swallow	*Hirundo rustica*		50	100	50	20	1	–	–	1	30	200	10	–	12 Aug / 14 May	
Common House Martin	*Delichon urbicum*		–	–	–	20	–	–	–	–	–	–	–	–		x
Motacillidae																
Yellow Wagtail	*Motacilla flava*		125	20	3	2	–	–	–	–	–	5	5	6	15 Oct / 25 Apr	
White Wagtail	*Motacilla alba*		1	–	–	–	–	–	–	–	–	–	–	–		x
African Pied Wagtail	*Motacilla aguimp*		1	2	1	3	4	–	4	–	–	–	–	–		
Plain-backed Pipit	*Anthus leucophrys*		–	–	–	–	–	–	–	1	–	–	–	–		x
Tree Pipit	*Anthis trivialis*		–	1	–	–	–	–	–	–	–	–	–	–		x
Campephagidae																
Red-shouldered Cuckooshrike	*Campephaga phoenicea*		–	1	–	1	–	–	1	1	–	1	–	–		
Pycnonotidae																
Yellow-throated Leaflove	*Chlorocichla flavicollis*		–	–	3	3	–	–	1	–	–	–	–	–		x
Northern Brownbul	*Phyllastrephus strepitans*		–	4	6	5	–	–	5	–	–	–	–	–		
Common Bulbul	*Pycnonotus barbatus*		50	10	20	50	20	5	20	15	20	20	4	5		
Turdidae																
Common Nightingale	*Luscinia megarhynchos*		–	6	–	–	–	–	–	–	–	–	–	–		x
White-browed Robin Chat	*Cossypha heuglini*		–	2	2	5	–	–	2	1	–	–	1	–		
Spotted Palm Thrush	*Cichladusa guttata*		1	6	2	1	1	–	1	2	3	–	–	–		
White-browed Scrub Robin	*Cercotrichas leucophrys*		–	2	2	2	1	–	–	–	–	–	1	–		

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Common Redstart	*Phoenicurus phoenicurus*		3	2	2	1	–	–	–	–	–	–	–	–	– / 3 Apr	
Whinchat	*Saxicola rubetra*		3	1	2	3	–	–	–	–	–	–	10	4	5 Nov / 24 Apr	
Northern Wheatear	*Oenanthe oenanthe*		4	3	8	1	–	–	–	–	–	–	–	11	– / 14 Apr	
Isabelline Wheatear	*Oenanthe isabellina*		1	4	4	–	–	–	–	–	–	1	–	–	22 Oct / 6 Mar	
African Thrush	*Turdus pelios*		2	8	2	2	–	1	2	1	–	–	–	–		
Sylviidae																
Little Rush Warbler	*Bradypterus baboecala*		–	–	–	–	–	–	–	1	–	–	–	–		x
Moustached Grass-Warbler	*Melocichla mentalis*		–	1	1	2	–	3	3	2	1	2	–	–		
Great Reed Warbler	*Acrocephalus arundinaceus*		–	–	–	–	–	–	–	–	1	1	2	–		x
Lesser Swamp Warbler	*Acrocephalus gracilirostris*		–	–	–	–	–	–	1	–	–	–	–	–		x
Eastern Olivaceous Warbler	*Hippolais pallida*		1	4	6	1	–	–	–	–	–	–	3	–	– / 23 Apr	
Icterine Warbler	*Hippolais icterina*		–	–	–	1	–	–	–	–	–	–	–	–		x
Green-backed Eremomela	*Eremomela canescens*	SG	–	–	2	1	2	–	–	–	–	–	–	–		x
Northern Crombec	*Sylvietta brachyura*		2	3	3	2	–	–	–	1	–	1	1	–		
Willow Warbler	*Phylloscopus trochilus*		–	–	1	15	–	–	–	–	–	–	4	–	5 Nov / 24 Apr	
Garden Warbler	*Sylvia borin*		–	–	–	2	–	–	–	–	–	–	–	–		x
Common Whitethroat	*Sylvia communis*		2	1	–	–	–	–	–	–	–	–	–	–		x
Cisticolidae																
Red-faced Cisticola	*Cisticola erythrops*		–	–	–	2	–	–	2	–	–	–	–	–		x
Singing Cisticola	*Cisticola cantans*		1	–	2	5	4	1	–	2	–	1	–	–		
Rattling Cisticola	*Cisticola chiniana*		5	6	4	5	–	5	10	15	8	4	5	1		
Winding Cisticola	*Cisticola galactotes*		2	–	1	1	–	5	10	10	1	1	–	–		
Croaking Cisticola	*Cisticola natalensis*		–	–	1	3	–	1	3	4	–	–	1	–		
Red-pate Cisticola	*Cisticola ruficeps*	SG	3	–	4	15	3	10	5	10	5	3	3	–		
Short-winged Cisticola	*Cisticola brachypterus*		–	–	–	–	–	–	–	–	–	–	–	–		
Foxy Cisticola	*Cisticola troglodytes*	SG	1	3	3	10	–	2	–	6	2	3	–	–		
Zitting Cisticola	*Cisticola juncidis*		2	–	–	–	–	–	–	3	–	–	–	–		x
Buff-bellied Warbler	*Phyllolais pulchella*		4	1	6	6	–	1	1	1	–	–	–	–		
Tawny-flanked Prinia	*Prinia subflava*		4	5	6	15	3	4	5	10	5	2	2	6		
Red-winged Warbler	*Heliolais erythropterus*		–	–	–	1	–	–	–	–	–	–	–	–		x
Green-backed Camaroptera	*Camaroptera brachyura*		4	4	2	1	–	1	2	1	–	2	–	–		
Muscicapidae																
Northern Black Flycatcher	*Melaeornis edolioides*		–	–	–	3	–	–	–	–	–	–	–	–		x
Pale Flycatcher	*Bradornis pallidus*		–	–	–	2	–	–	–	–	–	–	–	–		x
African Grey Flycatcher	*Bradornis microrhynchus*	SM	1	4	2	3	–	–	–	–	1	–	1	–		
Silverbird	*Empidornis semipartitus*		1	3	4	5	–	1	3	4	3	4	–	–		
Spotted Flycatcher	*Muscicapa striata*		–	–	1	4	–	–	–	–	–	2	–	–	15 Oct / 24 Apr	
Swamp Flycatcher	*Muscicapa aquatica*		–	–	1	–	–	–	–	–	–	–	–	–		x
Monarchidae																
African Paradise Flycatcher	*Terpsiphone viridis*		–	10	3	2	1	1	1	2	–	–	–	–		
Platysteiridae																
Grey-headed Batis	*Batis orientalis*		–	–	1	3	–	–	–	2	1	–	1	–		

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Timaliidae																
Brown Babbler	*Turdoides plebejus*		5	10	6	15	–	–	5	6	2	–	–	–		
Rufous Chatterer	*Turdoides rubiginosus*	SM	2	10	25	10	–	2	5	5	8	4	–	–		
Paridae																
White-shouldered Black Tit	*Parus guineensis*		–	–	2	3	–	–	–	–	–	–	–	–		x
Remizidae																
Mouse-coloured Penduline Tit	*Anthoscopus musculus*	SM	–	–	4	–	–	–	–	–	–	–	–	–		x
Nectariniidae																
Eastern Violet-backed Sunbird	*Anthreptes orientalis*	SM	1	2	1	3	–	1	–	1	2	–	1	–		
Scarlet-chested Sunbird	*Chalcomitra senegalensis*		–	2	2	2	–	–	1	–	–	–	–	–		
Beautiful Sunbird	*Cinnyris pulchella*		4	50	50	15	5	4	5	8	6	5	4	–		
Copper Sunbird	*Cinnyris cuprea*		–	–	–	1	2	4	4	2	1	1	1	–		
Zosteropidae																
African Yellow White-eye	*Zosterops senegalensis*		–	5	1	6	2	–	–	3	2	–	2	–		
Laniidae																
Grey-backed Fiscal	*Lanius excubitorius*		5	30	6	6	5	6	8	10	6	6	5	11		
Lesser Grey Shrike	*Lanius minor*		–	–	–	12	–	–	–	–	–	1	–	–	22 Oct / 24 Apr	x
Isabelline Shrike	*Lanius isabellinus*		1	–	–	–	–	–	–	–	–	–	–	–		x
Emin's Shrike	*Lanius gubernator*	SG	–	–	1	–	–	–	–	–	–	–	–	–		x
Woodchat Shrike	*Lanius senator*		3	4	6	6	–	–	–	–	–	–	–	–	– / 23 Apr	
Yellow-billed Shrike	*Corvinella corvina*	SG	–	–	–	10	–	5	2	4	10	–	–	–		
Northern White-crowned Shrike	*Eurocephalus rueppelli*		–	–	–	–	–	–	–	2	–	–	–	–		x
Malaconotidae																
Grey-headed Bushshrike	*Malaconotus blanchoti*		–	–	–	1	–	–	–	–	–	–	–	–		x
Sulphur-breasted Bushshrike	*Telophorus sulfureopectus*		–	1	–	1	–	–	–	–	–	–	–	–		
Marsh Tchagra	*Tchagra minutus*		–	–	1	–	–	–	–	–	–	–	–	–		x
Black-crowned Tchagra	*Tchagra senegalus*		6	5	2	6	1	3	2	3	1	–	–	–		
Northern Puffback	*Dryoscopus gambensis*		–	5	2	1	–	–	–	–	1	–	–	–		
Tropical Boubou	*Laniarus aethiopicus*		–	–	3	4	–	–	–	6	–	2	–	–		
Black-headed Gonolek	*Laniarus erythrogaster*		4	15	6	20	–	5	6	10	2	–	–	1		
Brubru	*Nilaus afer*		–	1	2	–	–	–	–	–	–	–	–	–		x
Prionopidae																
White Helmetshrike	*Prionops plumatus*		–	1	2	5	–	–	–	–	–	–	–	–		x
Oriolidae																
Eastern Black-headed Oriole	*Oriolus larvatus*		–	2	–	1	–	–	–	–	–	–	–	–		x
Eurasian Golden Oriole	*Oriolus oriolus*		–	–	2	–	–	–	–	–	–	–	–	–		x
Dicruridae																
Fork-tailed Drongo	*Drongo adsimilis*		10	5	10	20	–	5	6	15	10	10	5	–		
Corvidae																
Pied Crow	*Corvus albus*		–	–	–	–	–	–	–	–	–	–	–	–		
Piapiac	*Ptilostomus afer*	SG	50	20	5	8	3	–	50	3	3	30	30	–		
Sturnidae																
Red-winged Starling	*Onychognathus morio*		–	–	–	–	–	–	–	8	–	–	–	–		x

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Purple Glossy Starling	*Lamprotornis purpureus*	SG	–	–	–	5	–	–	–	–	–	–	–	–		x
Bronze-tailed Glossy Starling	*Lamprotornis chalcurus*	SG	–	–	–	–	–	–	30	10	–	–	30	–		
Greater Blue-eared Starling	*Lamprotornis chalybeus*		–	–	–	–	–	–	3	–	–	–	–	–		x
Lesser Blue-eared Starling	*Lamprotornis chloropterus*		–	–	–	–	50	50	30	50	30	20	–	–		
Rüppell's Glossy Starling	*Lamprotornis purpuroptera*		3	20	15	20	–	20	6	6	10	8	2	–		
Superb Starling	*Lamprotornis superbus*		–	10	–	–	–	–	8	15	4	–	–	–		
Violet-backed Starling	*Cinnyricinclus leucogaster*		–	–	10	–	8	–	40	5	2	–	–	–		
Wattled Starling	*Creatophora cinerea*		–	500	50	–	–	–	–	–	–	–	–	–		
Yellow-billed Oxpecker	*Buphagus africanus*		–	–	–	–	–	–	–	1	–	–	–	–		x
Passeridae																
Northern Grey-headed Sparrow	*Passer griseus*		1	6	2	3	–	2	5	8	10	5	1	–		
House Sparrow	*Passer domesticus*		–	1	–	–	–	–	2	–	–	–	–	–		x
Chestnut Sparrow	*Passer eminibey*		–	1	10	10	–	–	5	30	–	2	–	–		
Bush Petronia	*Petronia dentata*	SG	–	–	15	6	–	–	1	1	1	2	–	–		
Ploceidae																
White-billed Buffalo Weaver	*Bubalornis albirostris*		–	30	–	10	–	15	–	15	–	–	–	–		
White-headed Buffalo Weaver	*Dinemellia dinemelli*	SM	–	–	–	6	–	6	–	1	1	–	–	–		
White-browed Sparrow Weaver	*Plocepasser mahali*		100	20	10	10	–	25	6	20	15	20	6	–		
Chestnut-crowned Sparrow Weaver	*Plocepasser superciliosus*	SG	–	–	2	1	–	–	–	–	–	–	–	–		x
Speckle-fronted Weaver	*Sporopipes frontalis*		4	–	15	5	4	2	–	5	15	1	6	–		
Grey-headed Social Weaver	*Pseudonigrita arnaudi*		15	10	30	20	–	–	10	10	30	20	–	–		
Little Weaver	*Ploceus luteolus*		3	1	30	–	–	–	2	4	2	1	–	–		
Spectacled Weaver	*Ploceus ocularis*		–	1	–	–	–	1	–	–	–	–	–	–		x
Northern Masked Weaver	*Ploceus taeniopterus*		100	200	100	–	10	15	30	30	100	50	–	–		
Lesser Masked Weaver	*Ploceus intermedius*		–	5	1	–	–	–	3	–	–	–	–	–		
Vitelline Masked Weaver	*Ploceus velatus*		–	–	–	–	–	–	2	20	1	–	–	–		
Village Weaver	*Ploceus cucullatus*		–	2	5	30	–	25	200	100	50	200	–	–		
Grosbeak Weaver	*Amblyospiza albifrons*		–	–	–	–	2	2	–	2	5	–	–	–		
Cardinal Quelea	*Quelea cardinalis*		–	–	–	–	–	–	–	5	6	–	–	–		
Red-headed Quelea	*Quelea erythrops*		–	–	–	–	–	2	15	–	–	–	–	–		
Red-billed Quelea	*Quelea quelea*		–	–	–	–	–	15	2	–	–	–	–	–		x
Northern Red Bishop	*Euplectes franciscanus*		20	200	30	200	15	100	100	150	60	20	5	–		
Black-winged Bishop	*Euplectes hordeaceus*		–	2	30	30	30	30	20	100	30	–	–	–		
Black Bishop	*Euplectes gierowii*		–	–	–	–	–	2	4	1	–	–	–	–		
Yellow-crowned Bishop	*Euplectes afer*		–	–	–	–	–	–	20	1	–	–	–	–		x
White-winged Widowbird	*Euplectes albonotatus*		–	–	–	–	–	–	2	2	–	–	–	–		x
Fan-tailed Widowbird	*Euplectes axillaris*		–	–	–	–	–	3	40	15	3	4	–	–		
Estrildidae																
Fawn-breasted Waxbill	*Estrilda paludicola*		–	–	2	20	–	–	20	10	–	–	–	–		
Black-rumped Waxbill	*Estrilda troglodytes*	SG	50	100	200	60	–	30	30	6	3	–	1	6		
Common Waxbill	*Estrilda astrild*		–	–	–	–	–	–	–	2	–	–	–	–		x
Red-cheeked Cordon-bleu	*Uraeginthus bengalus*		15	50	100	50	20	20	15	80	10	10	10	10		
Red-winged Pytilia	*Pytilia phoenicoptera*	SG	–	–	4	–	–	–	–	–	–	–	–	–		x
Green-winged Pytilia	*Pytilia melba*		2	1	2	5	–	2	–	2	–	1	1	–		
Red-billed Firefinch	*Lagonosticta senegala*		1	20	10	20	–	2	3	10	2	–	2	5		

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Bar-breasted Firefinch	*Lagonosticta rufopicta*		–	5	2	6	–	–	–	1	–	–	–	–		x
Black-faced Firefinch	*Lagonosticta larvata*	SG	–	–	–	4	–	–	–	–	–	–	–	–		x
Black-bellied Firefinch	*Lagonosticta rara*	SG	–	–	4	4	1	–	–	1	–	–	1	–		
Cut-throat Finch	*Amadina faciata*		–	8	2	–	–	–	–	8	4	–	1	–		
Black-faced Quailfinch	*Ortygospiza atricollis*		–	–	–	–	–	–	–	10	–	–	–	–		x
Zebra Waxbill	*Amandava subflava*		–	–	–	–	–	–	–	15	–	–	–	–		x
Bronze Mannikin	*Lonchura cucullata*		30	20	20	25	–	–	10	20	–	–	–	–		
Viduidae																
Parasitic Weaver	*Anomalospiza imberbis*		–	–	–	–	–	1	1	20	–	–	–	–		x
Pin-tailed Whydah	*Vidua macroura*		1	6	–	1	–	10	5	10	15	2	2	–		
Exclamatory Paradise Whydah	*Vidua interjecta*	SG	–	–	–	–	–	–	–	–	3	–	–	–		x
Eastern Paradise Whydah	*Vidua paradisaea*		–	–	–	–	–	–	25	10	6	5	1	–		
Village Indigobird	*Vidua chalybeata*		–	2	–	–	–	–	1	3	30	–	–	–		
Fringillidae																
White-rumped Seedeater	*Serinus leucopygus*		1	5	8	1	–	–	–	4	–	6	1	–		
Yellow-fronted Canary	*Serinus mozambicus*		–	3	–	,15	5	–	–	6	4	–	–	–		
Emberizidae																
Brown-rumped Bunting	*Emberiza affinis*		–	1	5	5	10	–	–	2	1	–	–	–		
Cinnamon-breasted Bunting	*Emberiza tahapisi*		–	–	–	–	–	–	–	1	–	–	–	–		x

Appendix 2. Additions to the relevant squares in Nikolaus (1987)
Annexe 2. Compléments aux carrés définis par Nikolaus (1987)
Square numbers = degrees north / east (4/31 = 04°00'N 31°00'E). Numéros des carrés = degrés nord / est (4/31 = 04°00'N 31°00'E)

			4/31	5/31
1	Little Bittern	*Ixobrychus minutus*	x	
2	Striated Heron	*Butorides striata*	x	
3	Black Heron	*Egretta ardesiaca*	x	
4	African Spoonbill	*Platalea alba*	x	
5	Osprey	*Pandion haliaetus*	x	
6	African Cuckoo Hawk	*Aviceda cuculoides*	x	
7	Brown Snake Eagle	*Circaetus cinereus*	x	
8	Long-legged Buzzard	*Buteo rufinus*	x	
9	Eleonora's Falcon	*Falco eleonorae*	x	
10	Lesser Moorhen	*Gallinula angulata*	x	
11	Common Black-headed Gull	*Chroicocephalus ridibundus*	x	
12	Lesser Black-backed Gull	*Larus fuscus*	x	
13	Whiskered Tern	*Chlidonias hybrida*	x	
14	African Cuckoo	*Cuculus gularis*	x	
15	European Bee-eater	*Merops apiaster*	x	
16	Rufous-crowned Roller	*Coracias naevius*	x	
17	Lesser Honeyguide	*Indicator minor*	x	
18	Rufous-chested Swallow	*Cecropis semirufa*	x	
19	Yellow-throated Leaflove	*Chlorocichla flavicollis*	x	
20	Great Reed Warbler	*Acrocephalus arundinaceus*	x	
21	Icterine Warbler	*Hippolais icterina*	x	
22	Willow Warbler	*Phylloscopus trochilus*		x
23	Red-faced Cisticola	*Cisticola erythrops*	x	
24	Short-winged Cisticola	*Cisticola brachypterus*	x	
25	Swamp Flycatcher	*Muscicapa aquatica*	x	
26	Grey-headed Batis	*Batis orientalis*	x	
27	Copper Sunbird	*Cinnyris cupreus*	x	
28	Lesser Grey Shrike	*Lanius minor*		x
29	House Sparrow	*Passer domesticus*	x	
30	White-billed Buffalo Weaver	*Bubalornis albirostris*		x
31	Spectacled Weaver	*Ploceus ocularis*	x	
32	Grosbeak Weaver	*Amblyospiza albifrons*	x	
33	Black Bishop	*Euplectes gierowii*	x	
34	White-winged Widowbird	*Euplectes albonotatus*	x	
35	Red-winged Pytilia	*Pytilia phoenicoptera*	x	
36	Brown-rumped Bunting	*Emberiza affinis*	x	

Distribution of African Grass Owl *Tyto capensis* in southern Africa: survey priorities for Gauteng province

Craig A. Whittington-Jones[a]*, Sean West*[a] *and Doug M. Harebottle*[b]

Distribution de l'Effraie du Cap *Tyto capensis* en Afrique australe : priorités d'inventaire pour la province de Gauteng. Les données concernant la distribution historique de l'Effraie du Cap *Tyto capensis* ont été collationnées et une carte de répartition de l'espèce dans la province de Gauteng, Afrique du Sud, a été établie pour quatre périodes (pré-1982, 1982–91, 1992–2001 et 2002–11). Dans quatre carrés d'un quart de degré (CQD) l'espèce a été observée dans le passé, mais pas pendant la dernière décennie. Ces derniers ont été marqués comme prioritaires pour des inventaires complémentaires, sur la base de la proximité de CQD avec des données sûres pour cette période et le temps écoulé depuis que l'espèce fut observée pour la dernière fois dans les CQD vides. L'échelle approximative de l'analyse masque les effets de la perte continue d'habitat et sa fragmentation et dégradation. Bien que l'Effraie du Cap demeure une nicheuse sédentaire répandue dans la province, elle est maintenant rarement rencontrée dans une région où elle était considérée comme localement commune il y a 50 ans.

Summary. Historical distribution records for the African Grass Owl *Tyto capensis* were collated and the range of the species in Gauteng province, South Africa, was mapped over four time intervals (i.e. pre-1982, 1982–91, 1992–2001 and 2002–11). Four Quarter Degree Squares (QDS) for which the species was recorded historically, but not during the last decade, were identified as gaps and these were prioritised for follow-up surveys on the basis of proximity to QDS with confirmed records over this period and the time elapsed since the species was last recorded in the gap QDS. The coarse scale of the analysis masked the effects of ongoing habitat loss, fragmentation and degradation, and while African Grass Owls remain widespread breeding residents in the province, they are now rarely encountered in a region where they were considered locally common 50 years ago.

The African Grass Owl *Tyto capensis* (hereafter Grass Owl) is listed as Vulnerable in the most recent South African Red List assessment for birds (Barnes 2000). The rationale for this assessment was given as the small regional population (estimated at <5,000 mature individuals) and the rapid and ongoing destruction of the species' preferred rank grassland and wetland habitat, particularly in the provinces of KwaZulu-Natal and Mpumalanga. This was estimated to have led to a population decline exceeding 10% over the ten years or three generations preceding the assessment. A further decline of >20% over the ten years or three generations following the assessment was projected on the basis of decline in extent of occurrence (essentially Grass Owl distribution measured using a minimum convex polygon to encompass known, inferred or projected sites of present occurrence), area of occupancy (the area within the extent of occurrence that is occupied) and / or quality of habitat.

Grass Owls are nocturnal and rarely encountered alive during daylight hours, except when accidentally or deliberately flushed from a roost or nest site, so in the absence of a measure of observer effort, reporting rate is not a useful tool for assessing population fluctuations. Consequently, the absence of records for a given area and time period does not necessarily indicate a population decline or range contraction, but may rather reflect a lack of appropriate surveys. Conversely, a record for a given area should not be taken as evidence of a healthy local population.

While a formal review of the species' status is long overdue, few estimates of its population density exist (Mendelsohn 1989, Whittington-Jones 2010, Whittington-Jones *et al.* 2011) and these are derived from short-duration studies. Data from which to estimate a regional population and to project population trends are therefore extremely limited and future Red List assessments will, of necessity, depend primarily on a comparison of distribution data from the late 1980s and early 1990s generated by the Southern African Bird Atlas Project (SABAP1) (Harrison *et al.* 1997) and the ongoing second atlas project (SABAP2) to determine whether changes in the extent of occurrence and / or area of occupancy meet thresholds of concern (IUCN 2001). However, because the distribution and preferred habitat of Grass Owl and Marsh Owl *Asio capensis* overlap, and inexperienced observers may struggle to reliably distinguish the two species, especially in flight, targeted Grass Owl surveys will be necessary to ensure that any apparent changes in distribution between the two atlas periods are supported by good-quality data.

This paper outlines the process whereby gaps (i.e. areas where the species occurred historically, but not during the period 2002–11) in Grass Owl distribution in southern Africa were identified and prioritised in order to direct species-specific survey efforts. This first, in a planned series of analyses, focuses on Gauteng, the most urbanised and densely populated province in South Africa, where the species is considered of special conservation concern (GDACE 2004).

Methods

Analysis intervals

The IUCN Red List criteria consider, among other factors, changes in population size, extent of occurrence and area of occupancy of target species over ten-year intervals (IUCN 2001). For the purposes of our analyses, data were therefore divided into four groups, these being historical data (i.e. all records collected prior to 1982) and data collected for each of the subsequent ten years ending in 2011 (i.e. 1982–91, 1992–2001 and 2002–11). Maps of Grass Owl distribution in Gauteng for each of the four time intervals and a composite map that included all dated and undated records, thereby showing the maximum distribution of the species in the province, were generated using Diva-GIS 5.2.

Data sources

Grass Owl distribution data for Gauteng were extracted from the published literature (both scientific and popular), unpublished reports and field datasheets, the archives and collections of the Ditsong National Museum of Natural History (formerly the Transvaal Museum) and the Iziko South African Museum, the databases of the Animal Demography Unit, University of Cape Town (i.e. SABAP1, SABAP2, Birds In Reserves Project [BIRP], Nest Record Card Scheme [NERCS], Coordinated Waterbird Count [CWAC] and the SAFRING ringing database), Cape Nature, the Gauteng Department of Agriculture and Rural Development (GDARD), the Endangered Wildlife Trust (EWT), Natural World, FreeMe rehabilitation centre and the field notes and databases of many private individuals. Data were consolidated into a single spreadsheet and where duplicate records were identified (i.e. captured from more than one dataset) the available information was consolidated into a single record with a reference to each relevant source. Where coordinates were not provided, these were extrapolated from locality information (where this was sufficiently specific) using geo-referenced Geographic Information System (GIS) maps of the region. Coordinates ranging in accuracy from Global Positioning System (GPS) point data to Quarter Degree Square (QDS) centroid (i.e. *c.*20 km) were accepted, but records with poor locality (i.e. less than QDS accuracy) and / or date (i.e. not possible to assign to one of the four analysis intervals) resolution were excluded.

The dataset for the atlas of the birds of the former Transvaal province comprised records for the period 1960–86 derived from a variety of sources (Kemp *et al.* 1985, Tarboton *et al.* 1987) and was the main source of distributional data for Gauteng prior to 1982. Through the examination of museum specimens, original atlas datasheets, field notes and references, all but six of these atlas records could be allocated to a particular time period even if the precise date was unknown and despite temporal overlap between the Transvaal atlas and SABAP1. Individually dated records from the SABAP1 dataset were not available for the former Transvaal at the time of this analysis, but atlas data for this region were mainly collected in 1982–91 (Harrison *et al.* 1997). No large-scale bird surveys were undertaken in Gauteng during 1992–2001 and the *ad hoc* collection of museum specimens, ADU monitoring initiatives such as BIRP and CWAC, the long-running NERCS and bird ringing (under the auspices of SAFRING) generated few Grass Owl records for this period.

Collection and collation of Grass Owl distributional data for conservation planning purposes was initiated in 2002 (i.e. at the start of the final time period) and has continued until the present. These data were derived from targeted field surveys in remnant patches of suitable habitat by staff from the Gauteng Directorate of Nature

Conservation, ongoing ADU monitoring projects, reports from conservation NGOs (e.g. Jooste 2003), research projects (Ansara 2004), specialist avifaunal studies conducted as a requirement of Environmental Impact Assessments (EIAs), museum specimens and reports from the birding public. Since 2007 SABAP2 has provided a further important ongoing source of general bird distribution data for the province including some Grass Owl records.

Area of occupancy

Area of occupancy is defined as the area within the extent of occurrence of a species that is occupied by that species (IUCN 2001). It can be measured at a variety of scales, and while the scale should be appropriate to the biology of the species (IUCN 2001) it may be constrained by the available data. The coarsest data resolution (i.e. the QDS) necessarily dictated the spatial scale at which area of occupancy was calculated for Grass Owl and the actual proportion of each QDS that constituted suitable habitat for the species was unknown.

Provincial boundaries do not follow QDS boundaries and therefore, for the purposes of this analysis, QDS for which 50% or more of the total area fell within the borders of Gauteng were included in their entirety while the remainder (17) were excluded. The excluded QDS will be incorporated into the subsequent analyses for adjacent provinces according to the same principle. In Gauteng each QDS measures approximately 25 km × 28 km with an area of 700 km^2 or 70,000 ha.

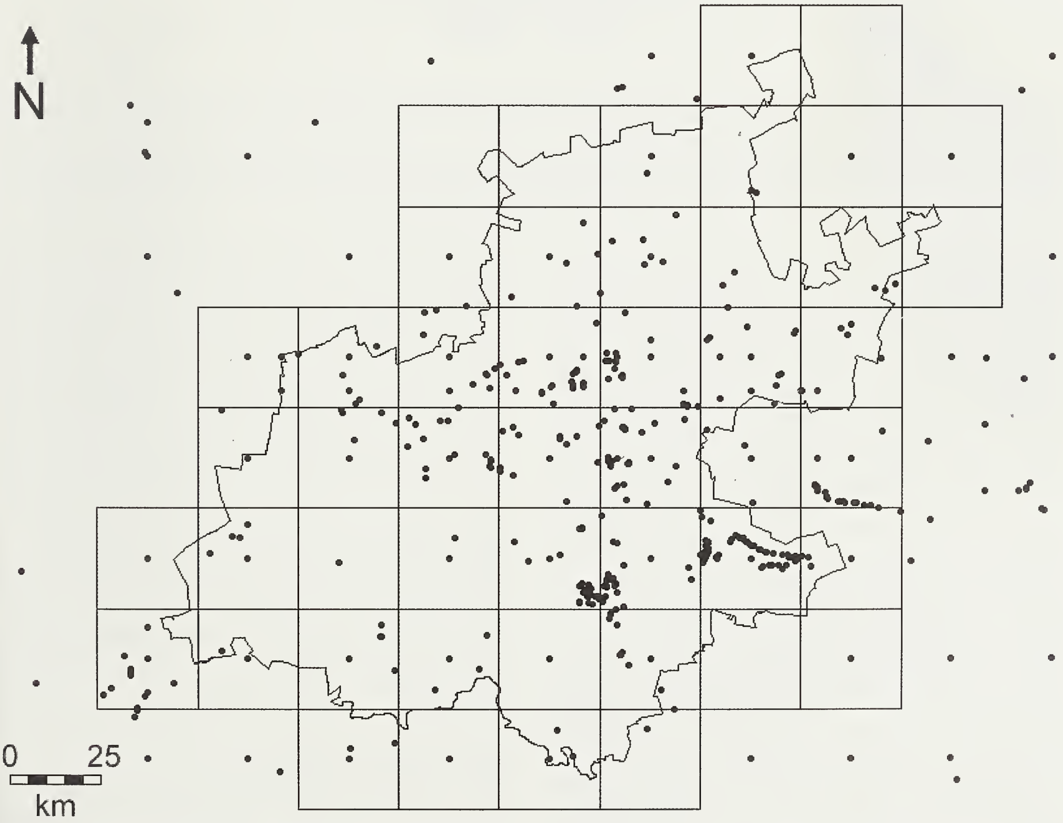

Figure 1. Distribution of Grass Owls *Tyto capensis* in Gauteng (boundary as at 2010), South Africa, for the period 1901–2011.

Répartition de l'Effraie du Cap *Tyto capensis* en Gauteng (limites de 2010), Afrique du Sud, pendant la période 1901–2011.

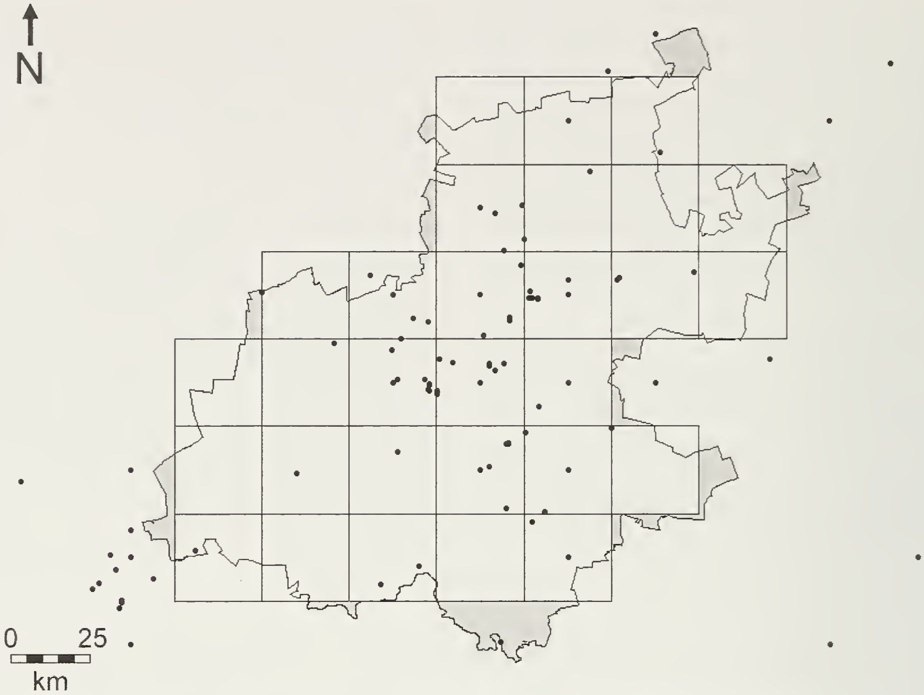

Figure 2. Distribution of Grass Owls *Tyto capensis* in Gauteng (modified to exclude QDS with <50% of area within province), South Africa, for the period prior to 1982.

Répartition de l'Effraie du Cap *Tyto capensis* en Gauteng (modifié afin d'exclure les CQD avec <50% de surface à l'intérieur de la province), Afrique du Sud, pendant la période précédent 1982.

Priority gaps

The current distribution of Grass Owls in Gauteng, mapped using data collected over the last ten years (2002–11), was compared with distribution data for the other three time intervals (i.e. 1992–2001, 1982–91 and prior to 1982). QDS where the species was recorded prior to 2002, but not subsequently were considered to be survey gaps. Gaps were ranked according to distance to the nearest QDS with a current record and then by time elapsed (in years) since the species was last recorded in a given QDS. Since many records were only accurate to the level of QDS centroid, distance was measured in terms of the number of QDS between the gap QDS and the nearest current record (i.e. a gap adjacent to a QDS with a current record scored 0, a gap one QDS away from a current recorded scored 1, etc.). Topocadastral maps, Google Earth satellite imagery, local knowledge and preliminary field visits were then used to refine the priority list further, based on whether or not suitable habitat for Grass Owls was thought to remain in a gap QDS.

Grass Owls typically roost and nest in the same habitat (Steyn 1982, Tarboton *et al.* 1987) and as such might be expected to breed throughout their recorded distribution in the province. Where evidence of breeding was noted, these records were nevertheless extracted and classified as confirmed (i.e. eggs or nestlings observed) or suspected (roost either occupied or unoccupied, but with a well-developed system of interconnected tunnels). Given the relative paucity of breeding records, the analysis was limited to two periods, i.e. all records collected before 2002 and those collected subsequently.

Results and Discussion

The 2010 boundary of Gauteng encompasses 12 full and 34 partial QDS. Grass Owls were recorded in 41 (89%) of these between 1901 and 2011, although not necessarily within the area currently defined as Gauteng (Fig. 1). Seventeen

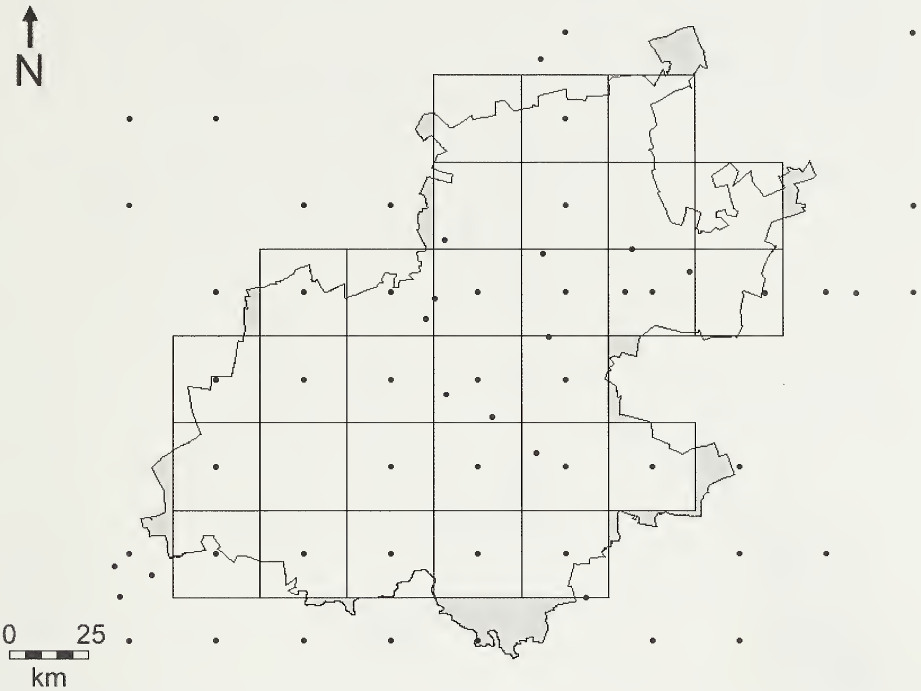

Figure 3. Distribution of Grass Owls *Tyto capensis* in Gauteng (modified to exclude QDS with <50% of area within province), South Africa, for the period 1982–91.

Répartition de l'Effraie du Cap *Tyto capensis* en Gauteng (modifiée afin d'exclure les CQD avec <50% de surface à l'intérieur de la province), Afrique du Sud, pendant la période 1982–91.

of these QDS were excluded from the analysis as <50% of their total area fell within the border of Gauteng (Figs. 2–5). Grass Owls were recorded in 28 of the remaining 29 QDS (96.6%). The concentration of records in the south-central and south-east of the province may be attributed to higher observer effort and does not necessarily reflect better habitat quality or greater Grass Owl population size / density.

Grass Owls were recorded in 21 of 29 (72.4%) QDS included in the analysis prior to 1982 (Fig. 2). Based on QDS alone, this gives a maximum area of occupancy of 14,700 km². Data collection appears to have been strongly biased towards the centre of Gauteng, potentially as a result of the relative proximity to the population centres of Johannesburg and Pretoria, and was undoubtedly stimulated by the initiation of the Transvaal bird atlas.

The launch of SABAP1, increased general bird surveys and reporting across the distribution of the Grass Owl, and the apparent increase in the range of the species in Gauteng during 1982–91 from 21 to 25 QDS (i.e. 86.2%) with a maximum area of occupancy of 17,500 km² is attributed to this change in sampling effort rather than a real range extension (Fig. 3). The QDS-scale reporting approach adopted for SABAP1 creates the impression of a more even distribution of Grass Owls in the province, but sampling biases and differences in habitat suitability undoubtedly persisted over this period.

Table 1. Priority gap QDS ranked according to distance and date when last recorded.

Tableau 1. CQD vides prioritaires classés selon la distance et la date de la dernière observation.

QDS	Distance to current record (km)	Last recorded	Suitable habitat remaining
2627BD—Grasmere	0	1969	Yes, management needed
2627BC—Westonaria	0	1966–74	Yes, very limited extent
2627CB—Klipdrift	0	1976	Yes
2628CA—Meyerton	0	1982–91	Yes

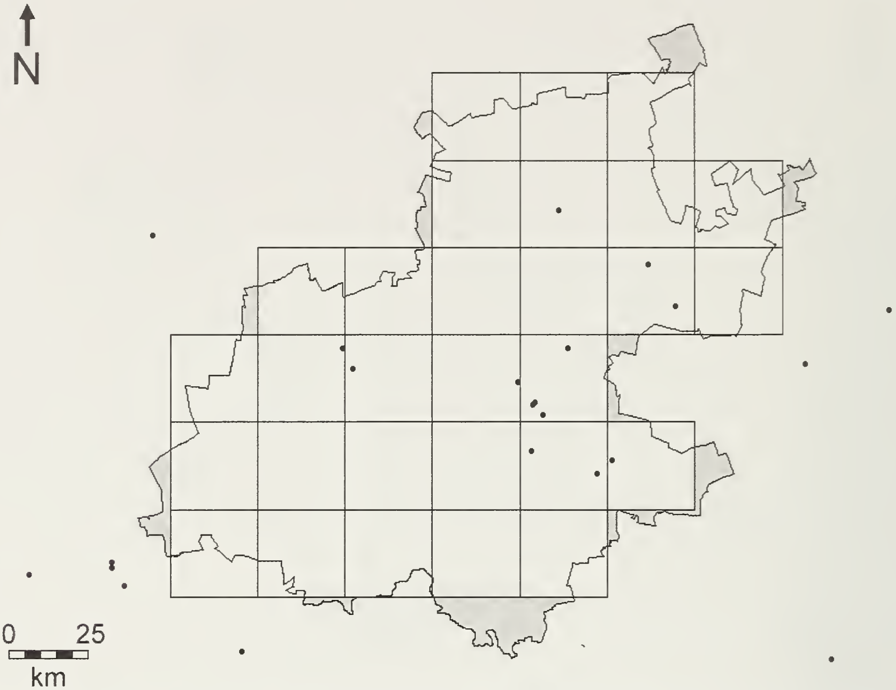

Figure 4. Distribution of Grass Owls *Tyto capensis* in Gauteng (modified to exclude QDS with <50% of area within province), South Africa, for the period 1992–2001.

Répartition de l'Effraie du Cap *Tyto capensis* en Gauteng (modifiée afin d'exclure les CQD avec <50% de surface à l'intérieur de la province), Afrique du Sud, pendant la période 1992–2001.

No formal atlas projects were conducted during 1992–2001 and data were largely limited to incidental collection of museum specimens (Fig. 4). Consequently, the marked decline in the number of QDS for which Grass Owls were recorded (from 25 to eight, or 27.6%) and in the estimated area of occupancy of (5,600 km^2) was predictable and does not reflect a real change in the species' distribution. The obvious paucity of data over this period highlights the importance of ongoing structured data collection initiatives as a means of tracking changes in the distribution of threatened species, especially if they are nocturnal or otherwise cryptic.

Over the last decade (2002–11), Grass Owls were recorded in 24 of 29 QDS (82.8%) giving a maximum area of occupancy of 16,800 km^2 (Fig. 5). Data collection during this period was stimulated by concern over the high number of owls killed on the N17 freeway and surrounding roads (Jooste 2003, Ansara 2004), province-wide biodiversity surveys undertaken by the Gauteng Directorate of Nature Conservation to inform the development of the provincial conservation plan, the introduction of more rigorous requirements for specialist ornithological studies as a component of EIAs and, most recently, the initiation of SABAP2 (July 2007 to present).

During 2002–11, Grass Owls were recorded in all but four of the QDS included in the study area where they were recorded historically and these are considered to be immediate survey priorities (Table 1). The highest priority is Grasmere QDS, where the species has not been recorded in over four decades, while the lowest priority is Meyerton QDS, where the species has not been recorded in at least two decades. All four gap QDS lie adjacent to QDS where the species has been recorded in the last decade.

While much of Grasmere QDS has been transformed by urban sprawl, a preliminary visit to the area in December 2011 revealed remnants of suitable habitat in the Olifantsvlei Municipal Nature Reserve (essentially a complex of sewage disposal works, settling ponds and cultivated lands along the Kliprivier east of Lenasia) and

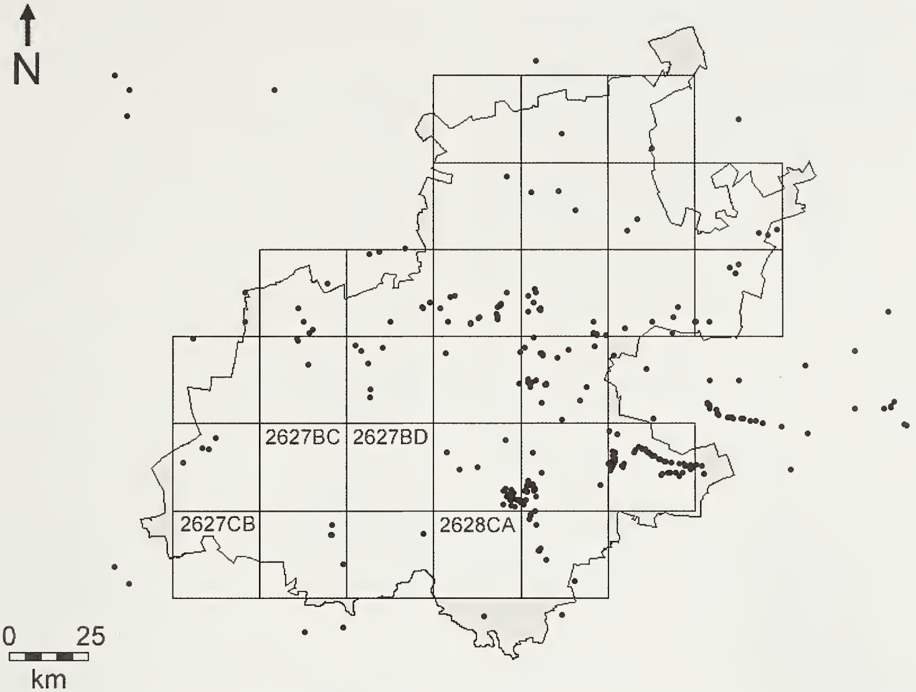

Figure 5. Distribution of Grass Owls *Tyto capensis* in Gauteng (modified to exclude QDS with <50% of area within province), South Africa, for the period 2002–11. Priority gap QDS are labelled.

Répartition de l'Effraie du Cap *Tyto capensis* en Gauteng (modifiée afin d'exclure les CQD avec <50% de surface à l'intérieur de la province), Afrique du Sud, pendant la période 2002–11. Les CQD vides prioritaires sont marqués.

the Johanna Jacobs Private Nature Reserve (along the Rietspruit east of Orange Farm). Neither protected area shows evidence of active conservation management, but if fire and grazing were to be managed, the potential for restoring tall rank grassland required by Grass Owls exists.

Westonaria QDS has very limited potential to support Grass Owls. While the farms Cardoville 364 IQ and Kalbasfontein 365 IQ in the south-east merit more comprehensive surveys, this QDS has been extensively transformed by cultivation and gold mining (at least ten mines with associated rock dumps and slime dams have been developed in the QDS). The area around the Wonderfonteinspruit, previously the largest wetland system in the QDS, was abandoned due to the formation of sinkholes in the local dolomitic compartment, a consequence of decades of active dewatering by gold mines to facilitate underground mining operations. Dewatering together with canalisation of the river has so affected the local hydrology that most of the original wetland habitat in the north of the QDS, including several large pans, has effectively been destroyed.

Cultivation is the main cause of land transformation in Klipdrift QDS, but an extensive network of non-perennial streams and associated grassland remains, and this QDS therefore has good potential to support Grass Owls provided that grazing and fire-management regimes are conducive to the development of tall, rank grassland. Urbanisation is encroaching on Meyerton QDS from the west, but extensive areas of suitable Grass Owl habitat still potentially exist along the Suikerbosrand River and the numerous non-perennial streams in this QDS. Two protected areas (i.e. the south-west portion of Suikerbosrand Nature Reserve and the Gert Jacobs Private Nature Reserve) also offer potential refuges for this species in an otherwise intensively cultivated landscape.

Grass Owls were recorded breeding in nine QDS in Gauteng prior to 2002 and in 11 subsequently (Table 2). Recent confirmation

Table 2. Summary of African Grass Owl *Tyto capensis* breeding records for Gauteng province, South Africa.

Tableau 2. Aperçu des données de nidification de l'Effraie du Cap *Tyto capensis* pour la province de Gauteng, Afrique du Sud.

QDS	Pre-2002	2002–present	
	Confirmed	Confirmed	Suspected
2527DC		1	
2527DD	2	1	
2528CC	3	5	2
2528CD	1	5	
2528DC	2		
2528DD		1	1
2627BA	1	1	
2627BB	10		
2627DB	1		
2628AA	6	1	
2628AB		1	1
2628AC		3	1
2628AD	3	9	
2628BC		5	3

of breeding in Bronkhorstspruit (2528DC), Roodepoort (2627BB) and Vereeniging (2627DB) QDS is lacking, but despite extensive habitat transformation, local Grass Owl populations persist in each of these areas and nests are unlikely to be found except by comprehensive surveys during the breeding season.

Superficially, the extent of occurrence, area of occupancy and breeding range of Grass Owls in Gauteng do not appear to have changed significantly when compared to broad historical distribution patterns, with only four obvious survey gaps identified at the QDS scale. Finer-scale modelling of remaining patches of potentially suitable habitat across the province (Whittington-Jones & Compaan in prep.), however, clearly demonstrates the fragmenting effects of cultivation, mining and urbanisation on the potential occurrence of Grass Owls in Gauteng.

While good population data are generally lacking for this species, the Grass Owl was historically considered a locally common resident in the broader Gauteng region (e.g. Markus 1964, Tarboton 1968), but is now rarely encountered and increasingly absent from areas (e.g. Darrenwood Dam) where it formerly bred (Davidson & Biggs 1974). Such local extinctions tend to be masked at the QDS scale by the persistence of Grass Owls in increasingly isolated pockets of remnant habitat, but the species is undoubtedly experiencing a widespread and ongoing decline in the province.

In the face of ever-increasing human pressure, adherence to and refinement of high-resolution land use planning tools such as provincial conservation plans (e.g. Compaan 2011) and the cross-boundary integration of such plans and associated conservation interventions is critical if a viable network of remaining Grass Owl habitat is to be conserved. The negative impacts of habitat fragmentation are further exacerbated by ill-timed and too-frequent fires, and incompatible livestock grazing regimes over much of the province, while there is an urgent need to develop and implement sound habitat management guidelines that will promote 'owl-friendly' farming practices.

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An analysis of this nature would be impossible without the assistance of numerous individuals, too many to name individually, who contributed their observations. However, particular thanks are due to those individuals and organisations who contributed large datasets, including the coordinators of and participants in the various survey and monitoring projects of the Animal Demography Unit, Tahla Ansara-Ross, Andre Botha, Paul Jooste and Matt Pretorius (all affiliated to the Endangered Wildlife Trust), Richard Koko, Jacob Makola, Aron Matabane, Wilson Molaba, Job Motsamai and Andries Mphuti of the Gauteng Directorate of Nature Conservation, Tamar Cassidy of the Ditsong National Museum of Natural History, Nicci Wright of FreeMe Rehabilitation Centre, Kevin Ravno of Natural World, Kevin Shaw of Cape Nature, as well as Rihann Geyser, Geoff Lockwood, Alan Kemp and Warwick Tarboton. The Gauteng Department of Agriculture and Rural Development is thanked for creating a work environment in which this research was possible. Alan Kemp and Ara Monadjem commented on the submitted draft of this paper.

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Vulture observations in the Sahelian zones of Chad and Niger

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Observations de vautours dans la zone sahélienne au Tchad et au Niger. Nous présentons un résumé de l'ensemble des observations de vautours obtenues lors d'inventaires sur la faune sauvage effectués entre 2010 et début 2013 au Niger oriental et au centre du Tchad. Ces inventaires n'étaient pas restreints aux routes, ni destinés en premier lieu au suivi des rapaces, ce qui signifie que la comparaison avec des estimations précédentes est limitée. Toutefois, la totalité des fréquences d'observations de vautours (oiseaux / 100 km) est tout à fait similaire à celles citées pour le Sahel occidental en 2004. Le Vautour de Rüppell *Gyps rueppelli* est l'espèce la plus souvent observée ; des exemples de nidification arboricole de cette espèce et du Vautour oricou *Torgos tracheliotos* dans de nombreux endroits du Sahel sont donnés. L'importance des aires protégées sahéliennes pour les populations reproductrices de ces deux espèces est documentée et la forte exposition des vautours à la pression anthropique et leur contribution au niveau des services écosystémiques sont évoquées. Par ailleurs, des informations essentielles sont fournies sur les fréquences d'observations actuelles de vautours, qui sont en principe reproductibles à l'avenir.

Summary. We present a summary of all vulture encounters during a series of wildlife surveys conducted in eastern Niger and central Chad, between 2010 and early 2013. These surveys were not restricted to roads and not designed primarily for raptor surveys, so comparaison with earlier estimates is limited, but overall vulture encounter rates (birds / 100 km) were broadly similar to those reported in the western Sahel in 2004. Rüppell's Vulture *Gyps rueppelli* was the most frequently observed species and examples of tree-nesting by this species and Lappet-faced Vulture *Torgos tracheliotos* in widely separated parts of the Sahel are summarised. The importance of Sahelian protected areas for breeding populations of these two species is documented, the strong exposure of vultures to human influence and their contribution to ecosystem services are discussed, while baseline information on current vulture observation rates, in principle repeatable in the future, is provided.

Recent studies of raptor road count information from a large area of West Africa have revealed a substantial decline in nearly all resident species over the past 30–40 years (Rondeau & Thiollay 2004, Thiollay 2006a, BirdLife International 2011, 2012). Vulture encounter rates in road counts are reported to have declined by 94% outside protected areas in the Sahel during this period (Thiollay 2006b). In view of this, all vulture and raptor observations have been consistently recorded during a series of extensive wildlife surveys and monitoring work by the Sahara Conservation Fund (SCF) and its partners in Chad and Niger. Regular recording commenced in the Termit area of Niger in 2007 and has since been expanded across both countries via a series of surveys at additional locations from late 2010 to early 2013.

In collaboration with Niger's Direction de la Faune, de la Chasse et des Aires Protégées (DFCAP), dry-season surveys have been conducted at Gadabeji Game Reserve, which was formally protected as a forest and wildlife reserve in 1955, and in the Gadafaoua-Taguedoufat region, an unprotected area under consideration as a managed hunting block. At Termit Massif and the adjacent Tin Toumma desert, the Sahelo-Saharan Antelope project has worked closely with the Nigerien wildlife department to establish a new protected area, the Termit and Tin Toumma National Natural Reserve (RNNTT), which was formally gazetted in March 2012.

In Chad, in collaboration with the Direction des Parcs Nationaux, Réserves de Faune et de la Chasse (DPNRFC), a wet-season survey was conducted in the Manga and Eguey regions, which although not formally protected support important wildlife populations. A further four surveys, covering both wet and dry seasons, were undertaken in the Ouadi Rimé-Ouadi Achim Game Reserve (OROAGR), which has been legally protected since 1969. Together these surveys provide data from a large zone across both Niger and Chad, stretching *c.*1,500 km east to west by *c.*500 km north to south (Fig. 1). In all, 35 half-degree grid squares were visited in Niger and 86 in Chad. This paper summarises information on the relative abundance, distribution and breeding behaviour of the six vulture species seen during field work. The area covered complements that surveyed in Mali, Burkina Faso and Niger in the 1970s and 2004 (Thiollay 2006a,b) (Fig. 1). Spot records of vultures in western Chad reported by Scholte (1998) appear to be mostly located in the south or further south than the zone reported here. Thus our results extend recent information on vulture distribution and status across the Sahel, although differences in methods and location mean our results are not directly comparable.

Methods

All vultures observed, in flight or on the ground, were recorded by species, number of individuals, time, location and activity. Methodology was broadly similar to that employed for monitoring raptors in extensive road count surveys in West Africa (Thiollay 2006a,b). However, they are not wholly comparable, because the surveys reported here were designed primarily for large mammal and land use recording at specific locations, with raptor counts added throughout as a secondary activity. Observations were made by at least four observers working from two vehicles travelling in single file and communicating via short-range radio. Activities during raptor counts included travel on asphalt, off-road reconnaissance, and off-road navigation of systematic straight-line transects to survey large areas (typically 6–8 parallel 40-km transects spaced at 10-km intervals), collecting data on large terrestrial mammals, bustards, livestock and human activity. Periodic, 500-m foot transects (+ / - every 10 km) were also conducted on transect sectors. Further variation in observation conditions arose because not all areas could be visited at the same time of year or during vulture breeding periods (primarily December–April). All vultures and other raptors seen were recorded irrespective of survey activity (including at stops), with vehicles stopped to verify identification and activity details with binoculars and photographs where necessary. Observations were recorded and automatically logged in a standardised format via a hand-held computer incorporating GPS using Cybertracker© software (www.cybertracker.org).

Information from Termit / Tin Toumma differs qualitatively in that most observations were made during repeated 10–14-day surveys and monitoring visits at 2–3 month intervals over the period 2008–11. Survey teams comprised several different observers and recorders. At all other sites, surveys were typically of *c.*2–3-weeks duration, conducted by the same core team members with the same recorder present on all occasions and widely separated by season during the period 2010 to early 2012.

Because the surveys were not aimed solely at raptor counting, have not been divided into sample units with respect to raptor distribution and were conducted under varying conditions, detailed statistical comparison of encounter rates is avoided. Nevertheless, simple encounter rates (birds / 100 km) have been calculated as a very broad guide. Interpretation and comparison must be subject to the caveats indicated above.

Landscapes and habitats

The surveys visited a wide range of tropical Sahelian and Saharan habitats between 12.00°–17.50°N. With the exception of routine monitoring at volcanic outcrops, plateaux and valleys of the Termit Massif, most landscapes surveyed comprised relatively wide, flat plains or undulating fixed dunes characteristic of the ancient greater Lake Chad Basin and its margins. The most southerly routes (in Chad) traversed the transition zones between Sahelian grasslands and light woodlands of the northern Sudan savannahs. The greater part of survey time was spent in the Sahel, with significant excursions into the southern Sahara in Tin Toumma (Niger) and Eguey (Chad). At Gadabeji in Niger and in the Chadian Manga and Ouadi Rimé-Ouadi Achim, typical Sahelian grassland plains and areas of vegetated fixed dunes predominate. Important tree species with respect to vulture observations include *Sclereocarya birrea* (Gadabeji), *Balanites aegyptiaca*, *Acacia raddiana* and *Maerua crassifolia* (all locations). Among fixed dunes, such as those at Gadabeji and in the southernmost Ouadi Rimé-Ouadi Achim reserve, trees may form small thickets. On flatter ground, isolated trees are more characteristic. Vegetation generally diminishes and trees disappear entirely at more northerly latitudes, especially across the large exposed dunes of the vast Tin Toumma and the flatter sandy ground of Eguey. Bahr al Ghazal, a former drainage of the drying Lake Chad, provides a distinctive habitat feature running diagonally north-east to south-west across central Chad,

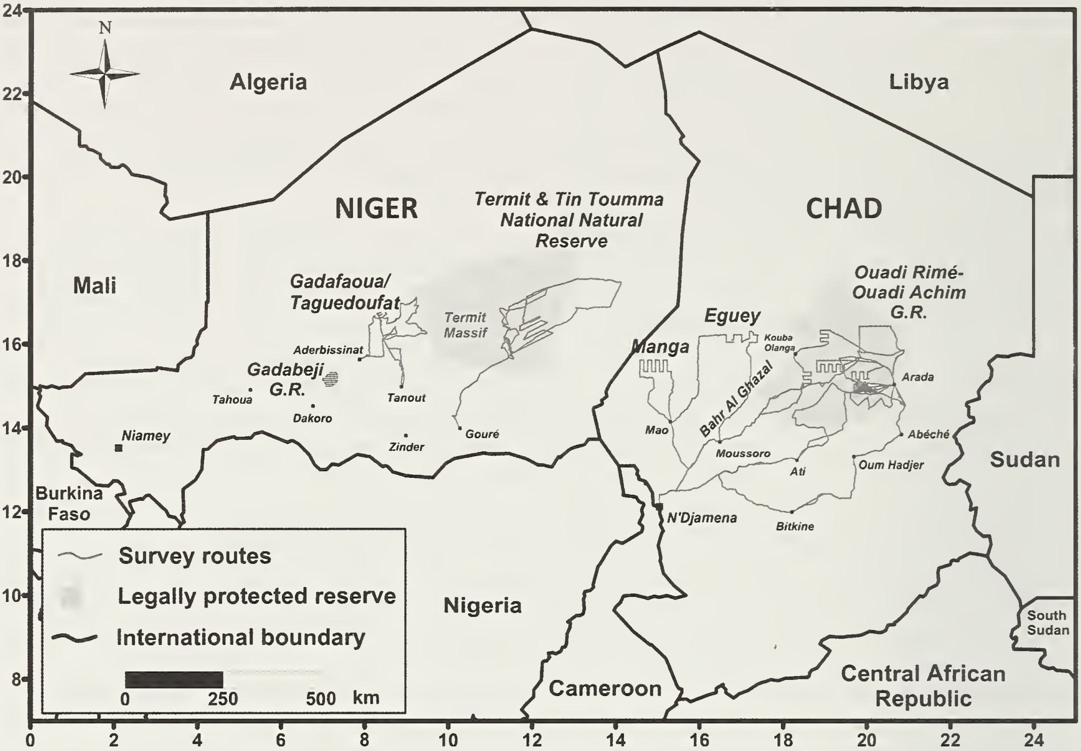

Figure 1. Map of survey routes in Niger and Chad where vulture observations were made in relation to major protected areas in the region. Note only two selected routes are illustrated in the Termit Tin Toumma area for clarity—see text.

Carte des itinéraires de comptage au Niger et au Tchad où des observations de vautours ont été faites, par rapport aux principales aires protégées de la zone. Noter que seulement deux itinéraires sont indiqués pour la zone de Termit et Tin-Toumma par souci de clarté—voir texte.

distinguished by numerous trees and thickets, e.g. of *Acacia nilotica* and *Salvadora persica*. Following rain (July–September) numerous temporary pools form along the Bahr al Ghazal, although at other seasons the area is dry and dusty.

Distribution and availability of potential food resources for vultures across the survey area is dictated primarily by the presence and movements of livestock. The overall relative abundance and biomass of livestock substantially outstrips that of wild ungulates everywhere except in Termit / Tin Toumma. Among wild ungulates, only Dorcas Gazelle *Gazella dorcas* occurs throughout, with significant numbers at Termit in Niger, and in the Manga and Ouadi Rimé-Ouadi Achim in Chad. Only at Termit do wild ungulates (mostly Dorcas Gazelles with very small numbers of Dama Gazelle *Nanger dama*, Barbary Sheep *Ammotragus lervia* and Addax *Addax nasomaculatus*) match or locally surpass domestic livestock in abundance and diversity. In all other areas, very large and mobile herds of camels, cattle and small stock with attendant donkeys and horses are widespread, based primarily around extensive wells at more southerly latitudes. Transhumance in search of fresh grazing and surface water with seasonal rainfall still operates over much of the region, resulting in significant seasonal movements of people and their herds.

Results

Six species of vulture were encountered along the routes illustrated in Fig. 1. The primary survey areas, with dates and season, a brief indication of survey method, habitat and overall effort (days in the field, total distance covered and number of half-degree squares entered), and total numbers of locations where vultures were seen at tree nests, are

Table 1. Summary of vulture sightings and survey effort during Pan-Sahara Wildlife Surveys, Chad and Niger 2010–12 and the Sahelo-Saharan Antelope project at Termit Massif accumulated 2007–11. Figures under the species columns indicate total number of birds seen with total number of locations with birds on tree nests in square brackets.

Tableau 1. Résumé des observations de vautours et de l'effort de comptage lors des inventaires du Pan-Sahara Wildlife Surveys au Tchad et au Niger en 2010–12 et dans le cadre du projet Antilopes Sahélo-Sahariennes au massif de Termit en 2007–11. Les chiffres sous les colonnes des espèces indiquent le nombre total d'oiseaux observés, avec (entre parenthèses) le nombre total des localisations concernant des oiseaux nichant dans des arbres.

Location	0.5 × 0.5 grids visited [days in the field]	Survey period	Habitat	Survey methods	Egyptian Vulture *Neophron percnopterus*	Hooded Vulture *Necrosyrtes monachus*	White-backed Vulture *Gyps africanus*	Rüppell's Vulture *Gyps rueppelli*	Lappet-faced Vulture *Torgos tracheliotos*	White-headed Vulture *Trigonoceps occipitalis*
Gadabeji, Niger	1 [16]	Mar 2010	Sahel grassland. Plains and fixed dunes, trees frequent	Off-road vehicle transects (376.5 km)	2	0	0	16 [5]	9[2]	3[1]
Gadafaoua-Taguedoufat, Niger	9 [15]	May 2010	Gadafaoua: gravel plains, rocky outcrops, barkans, trees infrequent / absent. Taguedoufat: Sahel grassland and gravel plains, trees infrequent	Off-road vehicle reconnaissance (1,078 km)	0	0	0	0	10[1]	0
Termit/Tin Toumma, Niger	24 [multiple visits]	2007–11	Sahel fixed-dune grassland (trees frequent); sub-Saharan massif, sand & gravel valleys, cliffs & plateaux (trees frequent), Tin Toumma: Saharan sand sea desert (trees absent)	Routine monitoring at three-month intervals. Off-road reconnaissance and fixed transect surveys.	(43 sightings)	0	0	[1]	(Near-daily sightings at Termit Massif) [80]	0
Manga and Eguey, Chad	24 [14]	Aug 2010	Manga: Sahel fixed-dune grassland (trees frequent). Eguey: sub-Saharan gravel and sand-sheet plains (trees absent)	Off-road reconnaissance and transects (1,937 km): road count (332 km)	0	29	17	140+ (+50 *Gyps* sp.)	35	0
Central Chad and RFOROA	39 [19]	Jan–Feb 2011	Ndjamena to Arada Sahel/Sudan margin (trees abundant), RFOROA: Sahel grassland, trees frequent to scarce	Road count and off-road transects and reconnaissance 3,300 km	10	18	18	77[3]	17[3]	1
Central Chad and RFOROA	47 [20]	Sep 2011	“	Road count and off-road transects and reconnaissance 3,027 km	4	45	16	122	52	0
Central Chad and RFOROA	35 [10]	Apr 2012	“	Road count and off-road reconnaissance 2,028 km	1	16	0	24[2]	15[4]	0
Central Chad and RFOROA	39 [18]	Mar 2013	“	Road count and off-road reconnaissance 2,827 km	25	3	4	193[13] (+28 *Gyps.* sp.)	67[10]	0

Table 2. Vulture encounter rates in eastern Niger and central Chad, 2010–12, summing all surveys except Termit / Tin Toumma. Total distance covered: 14,905 km. See Fig. 1 and Table 1 for details.

Tableau 2. Fréquence d'observations des vautours au Niger oriental et au centre du Tchad, 2010–12, pour tous les inventaires cumulés à l'exception de ceux dans le Termit et Tin-Toumma. Distance totale parcourue : 14.905 km. Voir Fig. 1 et Tableau 1 pour plus de détails.

Species	Total seen	Encounter rate: birds / 100 km
Egyptian Vulture *Neophron percnopterus*	42	0.3
Hooded Vulture *Necrosyrtes monachus*	111	0.7
White-backed Vulture *Gyps africanus*	55	0.4
Rüppell's Vulture *Gyps rueppelli*	572	3.8
Lappet-faced Vulture *Torgos tracheliotos*	205	1.4
White-headed Vulture *Trigonoceps occipitalis*	4	0.03
Unidentified *Gyps*	87	0.6
Total	1,076	7.2

summarised in Table 1. Overall encounter rates are summarised in Table 2. Notes on individual species are given below, with present conservation status (BirdLife International 2012). All six species are currently either EN = Endangered or VU = Vulnerable.

Egyptian Vulture *Neophron percnopterus* (EN)

Recorded in 20 of 121 half-degree squares (Fig. 2), with a cluster of regular encounters in the Termit Massif and Koutous hills (*c.*120 km south-west of Termit) in Niger, where the presence of adults and occasional immatures year-round (except January and April) implies a resident population. Nests yet to be found. Dry-season sightings of pairs at the rocky outcrops of Dibella and Agadem, east of Tin Toumma in Niger (November 2010), are also notable. These remote hills are surrounded by extensive treeless sand desert but align to the north with a series of outcrops running north to south across the central Sahara. It is unclear whether the vultures here are residents, migrants, or opportunistic followers of nomads and their livestock temporarily based at the ancient wells and scattered clumps of *Hyphaene* palms that grow in the lee of the hills. Elsewhere observations mainly of immatures in ones and twos across the grasslands of central Chad are typically associated with multi-species gatherings at livestock carcasses. Notable concentrations of nine in February 2011 and 22 (adults and immatures) in March 2013 were at the southern end of the Bahr al Ghazal, with other vultures at the same water-filled roadside borrow pit. This area corresponds closely to the first resting area (seven days in October–November 2001) used by a satellite-tracked immature captured as a nestling in Bulgaria (Meyburg *et al.* 2004). In the 1960s a seasonal population of 400 comprising 50% Palearctic migrants and 50% African residents was estimated at Abéché (Salvan 1968), but none was noted there in three separate visits by us. Recent studies confirm regular overwintering in the Sahel by European-breeding Egyptian Vultures (Ceccolini *et al.* 2009, García-Rippolés *et al.* 2010). Resident breeding has been confirmed infrequently at a few scattered localities in the Sahel (Salvan 1968, Scholte 1998, Thiollay 2006b) and there is evidently interesting potential for direct contact and exchange between resident African and migrant European stocks.

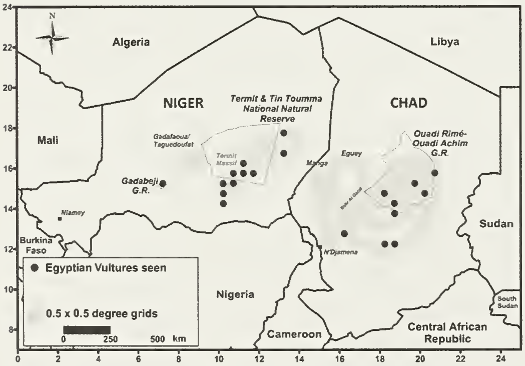

Figure 2. Distribution of Egyptian Vulture *Neophron percnopterus* observations. Grey = grid squares visited during survey work.

Distribution des observations de Vautour percnoptère *Neophron percnopterus.* Les carrés parcourus lors des travaux d'inventaires apparaissent en gris.

Hooded Vulture *Necrosyrtes monachus* (EN)

Observed in 16 of 121 half-degree squares, primarily in the southernmost part of the survey area closer to more Sudan savannah habitats. The main concentration is associated with the comparatively well-watered zone at the southern end of the Bahr al Ghazal in Chad (Fig. 3). Most were near or over villages and towns, in line with its well-known commensal habits in West Africa (Brown *et al.* 1982). Northernmost sightings in

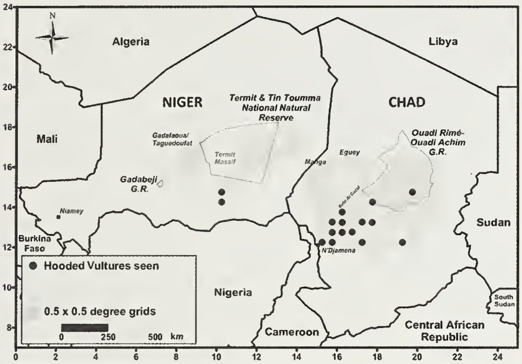

Figure 3. Distribution of Hooded Vulture *Necrosyrtes monachus* observations. Grey = grid squares visited during survey work.

Distribution des observations de Vautour charognard *Necrosyrtes monachus*. Les carrés parcourus lors des travaux d'inventaires apparaissent en gris.

the Ouadi Rimé-Ouadi Achim Game Reserve were in the wet season, but no evidence of nesting anywhere. Breeding at more northerly latitudes of Niger and Chad is known (Brown *et al.* 1982, Borrow & Demey 2001); the species was present in hundreds at Abéché in the 1960s, associating with an abattoir (Salvan 1968). Our surveys passed this town in both wet and dry seasons, but none was recorded there. Throughout the 1970s Hooded Vulture was an uncommon, mainly wet-season visitor to the OROAGR, with no breeding records in the reserve (Newby 1979).

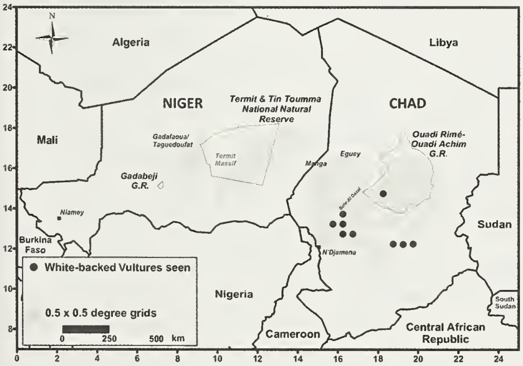

Figure 4. Distribution of White-backed Vulture *Gyps africanus* observations. Grey = grid squares visited during survey work.

Distribution des observations de Vautour africain *Gyps africanus*. Les carrés parcourus lors des travaux d'inventaires apparaissent en gris.

White-backed Vulture *Gyps africanus* (EN)

Encountered in nine half-degree squares, all in Chad, and primarily in the wet season at the Bahr al Ghazal (Fig. 4). Principally associated with the Sudanian zone at the southern margins of the study area (Salvan 1968, Brown *et al.* 1982, Borrow & Demey 2001) and was considered resident and common to abundant in the early 1990s by Scholte (1998). The majority of sightings were in the south, but the surveys also revealed that a small number may move north in the wet season. Two were recorded north of 14°N in the western Ouadi Rimé-Ouadi Achim, in an area with numerous temporary pools, in September 2011. Largest numbers in the southern Bahr al Ghazal with many raptors and other large soaring birds attracted to the temporary pools, insects and livestock in the area in September 2010. Usually observed in mixed-species assemblages with Rüppell's Vultures and sometimes Hooded and Lappet-faced Vultures, enabling direct comparisons. No evidence of breeding.

Rüppell's Vulture *Gyps rueppelli* (EN)

Recorded in 39 of 121 half-degree squares (Fig. 5), and in all seasons and zones, except Gadafaoua-Taguedoufat, which was visited only in the dry season. Rüppell's Vultures account for the majority of vulture observations in the survey area (Tables 1–2). Considered resident and common throughout the area by Scholte (1998). Active established vulture colonies on prominent

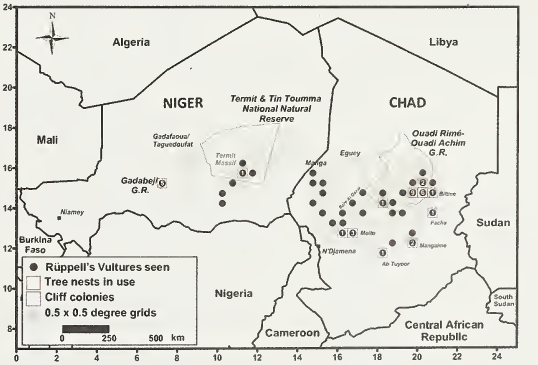

Figure 5. Distribution of Rüppell's Vulture *Gyps rueppelli* observations. Grey = grid squares visited during survey work.

Distribution des observations de Vautour de Rüppell *Gyps rueppelli*. Les carrés parcourus lors des travaux d'inventaires apparaissent en gris.

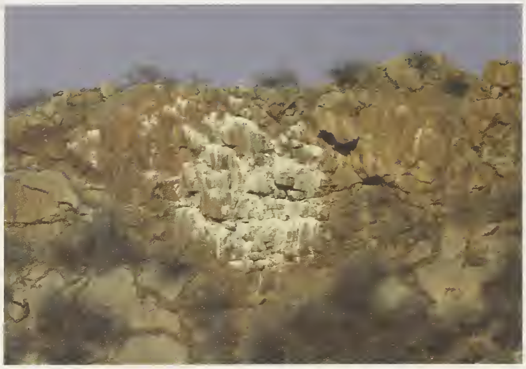

Figure 6. Example of typical cliff colony of Rüppell's Vulture *Gyps rueppelli* near Moito, central Chad, March 2013. At least six perched birds visible on upper margin of white-stained area (Tim Wacher)

Exemple typique de colonie de Vautours de Rüppell *Gyps rueppelli* sur les falaises près de Moito, au centre du Tchad, mars 2013. Au moins six oiseaux perchés sont visibles sur la bordure supérieure de la zone teintée de blanc (Tim Wacher)

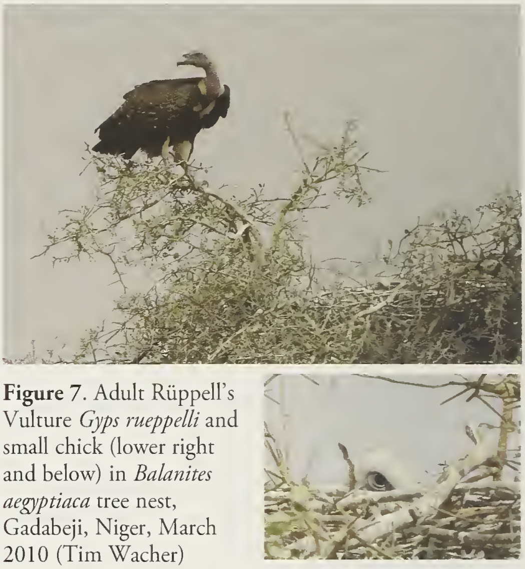

Figure 7. Adult Rüppell's Vulture *Gyps rueppelli* and small chick (lower right and below) in *Balanites aegyptiaca* tree nest, Gadabeji, Niger, March 2010 (Tim Wacher)

Vautour de Rüppell *Gyps rueppelli* adulte et petit oisillon (en bas à droite et dans l'encart) sur un nid dans un *Balanites aegyptiaca*, Gadabeji, Niger, mars 2010 (Tim Wacher)

granite inselbergs across southern Chad were noted at Moito, Ab Tuyoor, Mangalme, Facha and probably Biltine in 2013 (Figs. 5–6). Time and survey objectives did not permit accurate counting at these sites, nor were any direct observations of active nests confirmed, although 47 of the total Rüppell's Vultures recorded on the 2013 survey were associated with these colonies. In addition 24 cases of Rüppell's Vultures using treetop stick nests at the height of the dry seasons of 2010–13 were recorded (for a summary of tree-nesting observations, see Table 3). The nests resemble tree nests of Lappet-faced Vultures in situation and structure, generally in the crowns of flat-topped thorny trees, though perhaps averaging slightly smaller in size. *Balanites aegyptiaca* trees were strongly favoured, used in all five cases at Gadabeji and in 14 of 18 nests in OROAGR (the rest were in *Maerua crassifolia*). At Gadabeji, in March 2010, white downy young of varying sizes were observed in three nests, with attendant adults present in all cases (Fig. 7). Adults were

Table 3. Vulture tree nests observed in Niger and Chad, 2008–13. In all cases nests were discovered by observing adult birds standing on the nest, confirming species identity.

Tableau 3. Nids de vautours arboricoles observés au Niger et au Tchad entre 2008 et 2013. Noter que les nids ont été découverts en observant des adultes perchés sur le nid, confirmant ainsi l'identité de l'espèce.

		Nest status		Nesting tree species				
		Nests	Eggs or chick confirmed	*Maerua crassifolia*	*Balanites aegyptiaca*	*Acacia raddiana*	*Sclereocarya birrea*	Tree sp.?
Termit	Lappet-faced Vulture	80	11*	34	1	45	0	0
	Rüppell's Vulture	1	0	1	0	0	0	0
Other sites	Lappet-faced Vulture	17	4	4	4	4	0	5
	Rüppell's Vulture	23	16	3	19	0	0	1
	White-headed Vulture	1	0	0	0	0	1	0
	Totals	122	31	42	24	49	1	6

* maximum number of chicks recorded in a single year (2011),when 53 nests were monitored consistently throughout the breeding season.

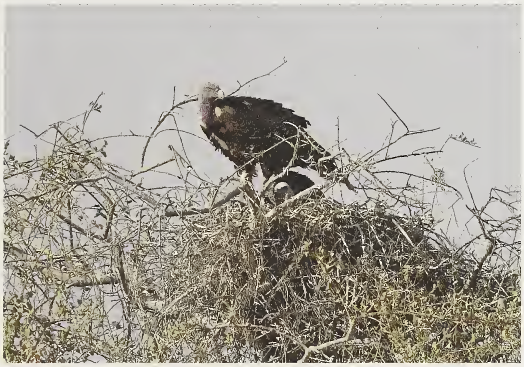

Figure 8. Adult Rüppell's Vulture *Gyps rueppelli* shading young on nest in *Balanites aegyptiaca* tree, Ouadi Rimé-Ouadi Achim Game Reserve, Chad, March 2013 (John Newby)

Vautour de Rüppell *Gyps rueppelli* adulte faisant de l'ombre à un oisillon sur un nid dans un *Balanites aegyptiaca*, Tchad, mars 2013 (John Newby)

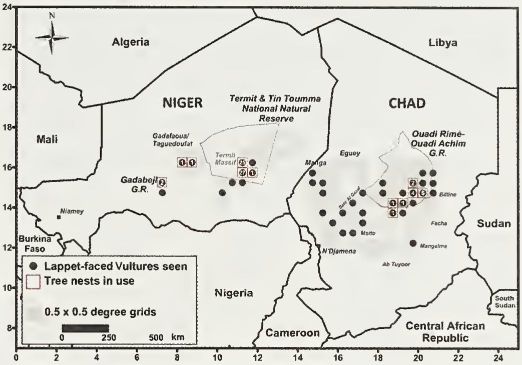

Figure 9. Distribution of Lappet-faced Vulture *Torgos tracheliotos* observations. Grey = grid squares visited during survey work.

Distribution des observations de Vautour oricou *Torgos tracheliotos*. Les carrés parcourus lors des travaux d'inventaires apparaissent en gris.

seen sitting tight at three tree nests in OROAGR in January 2011. Larger young, possibly recently fledged but still tended by adults, were observed at two tree nests in OROAGR in April 2012. At 13 tree nests found in OROAGR in March 2013 young were observed at 11 nests, in all cases with at least one adult shading the nestling (Fig. 8). Minimum distances between active nests were 3.6–5.6 km at Gadabeji, once with an active Lappet-faced Vulture nest 700 m away. Six nests at OROAGR in 2013 were <2 km from other active Rüppell's Vulture nests, with a minimum distance of 704 m between nests. One nest was 524 m from a Lappet-faced Vulture nest. No cases were observed of Rüppell's Vultures nesting in the same tree as Lappet-faced Vultures, as reported by Salvan (1968). In the southern OROAGR a small group of tree nests was noted in sight of granite inselbergs *c*.30 km to the south-east. A pair consistently visited a large stick nest in the crown of a *Maerua crassifolia* on the east side of the Termit Massif in 2008–10, although breeding was not confirmed. The species consistently attends livestock carcasses and sometimes wells in the southern RNNTT, occasionally in large groups (Fig. 14).

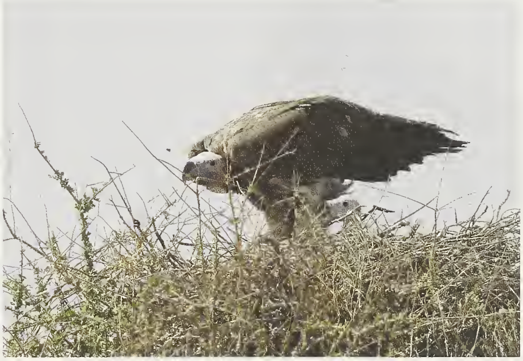

Figure 10. Lappet-faced Vultures *Torgos tracheliotos* at nest on *Maerua crassifolia*, Ouadi Rimé-Ouadi Achim Game Reserve, Chad, March 2013 (John Newby)

Vautours oricou *Torgos tracheliotos* sur un nid dans un *Maerua crassifolia*, Réserve de Faune de Ouadi Rimé-Ouadi Achim, Tchad, mars 2013 (John Newby)

Lappet-faced Vulture *Torgos tracheliotos* (VU)
Widespread but not common in Chad in the early 1990s (Scholte 1998), this was the second-most frequently recorded species and by a narrow margin the most widespread, seen in 40 of 121 half-degree squares (Fig. 9). Breeders were observed at large stick nests in the crowns of trees at two sites in Gadabeji (March 2010). At OROAGR nests were found at one site in February 2011, four sites in April 2012 and ten sites in March 2013 (Fig. 10). Three of the ten nests in March 2013 were <2 km from other active nests and, unlike Rüppell's Vulture, most nests were on either *Acacia raddiana* or *Maerua crassifolia*, with only two on *Balanites aegyptiaca*. At both Gadabeji and OROAGR examples of Lappet-faced Vultures nesting <1 km

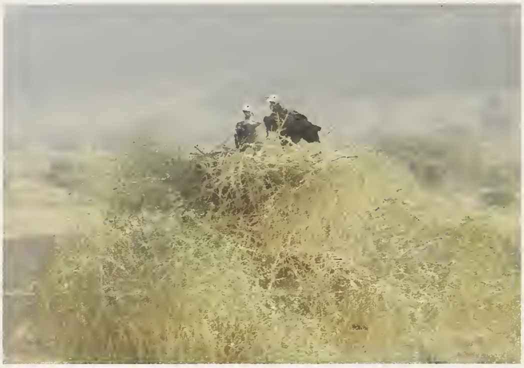

Figure 11. Pair of Lappet-faced Vultures *Torgos tracheliotos* on *Balanites aegyptiaca* tree nest, Termit, Niger, December 2007 (Tim Wacher)

Couple de Vautours oricou *Torgos tracheliotos* sur un nid dans un *Balanites aegyptiaca*, Termit, Niger, décembre 2007 (Tim Wacher)

from Rüppell's Vulture tree nests were found (see above). In late May 2010, Lappet-faced Vultures were seen perched near large vulture tree nests at two locations in the central plains of the Gadafaoua region of Niger, and although nesting was not proven, it is highly probable.

The major breeding area detected is in the Termit Massif. In 2007–11, the SCF / DCFAP survey teams logged 80 active nests at Termit, with 45 on *Acacia raddiana*, one on *Balanites aegyptiaca* (Fig. 11) and 34 on *Maerua crassifolia*. Not all nests are used annually. Fifty-three nests were attended by adults in early 2011, of which at least 11 produced young. In most cases at Termit nests were not in view of each other at ground level, although a high proportion were within 2 km of one another. Salvan (1968) records multiple nests ('4 or 5') in one tree. Although some examples of new active nests were observed alongside old and collapsed nests in the same tree, all nest sites involve single pairs, and no cases of multiple active nests in one tree were encountered.

White-headed Vulture *Trigonoceps occipitalis* (VU)

Typically scarce compared to other species (Brown *et al.* 1982) and like Hooded and White-backed Vultures probably has a relatively southerly distribution compared to the main survey area. As might be expected, they were the least frequently encountered species in our dataset, being found in one half-degree grid square in each country (Fig. 12). A pair was observed on a large tree nest at Gadabeji, slightly north of published range limits, during a reconnaissance in January 2008 (Fig. 13); three single adults were seen separately in the same area in March 2010. It was considered a regular wet-season visitor to the vicinity of Abéché in the 1960s (Salvan 1968) and to be widespread and breeding during the cooler months in the Ouadi Rimé-Ouadi Achim reserve during the 1970s (Newby 1979). None was encountered during recent visits (wet and dry season) to OROAGR.

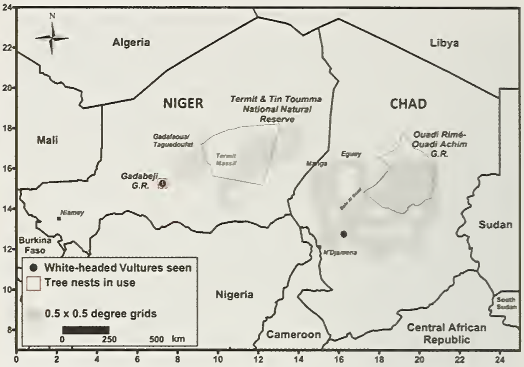

Figure 12. Distribution of White-headed Vulture *Trigonoceps occipitalis* observations. Grey = grid squares visited during survey work.

Distribution des observations de Vautour à tête blanche *Trigonoceps occipitalis*. Les carrés parcourus lors des travaux d'inventaires apparaissent en gris.

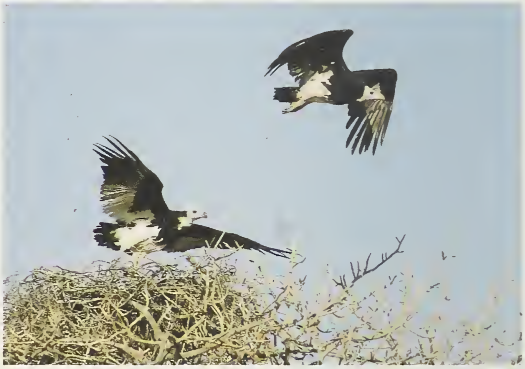

Figure 13. Pair of White-headed Vultures *Trigonoceps occipitalis* at *Sclereocarya birrea* tree nest, Gadabeji, Niger, January 2008 (Scott Tidmus)

Couple de Vautours à tête blanche *Trigonoceps occipitalis* sur un nid dans un *Sclereocarya birrea*, Gadabeji, Niger, janvier 2008 (Scott Tidmus)

Relative encounter rates

Simple global encounter rates (birds counted / 100 km) derived from summing all observations across all surveys outside the Termit region (see Methods) are summarised in Table 2. These show that the numerically most abundant species, Rüppell's Vulture, was observed at nearly 4 birds /100 km, followed by Lappet-faced Vulture at just less than 1.5 birds / 100 km. The global rate of vulture sighting combining all six species was 7.2 birds / 100 km.

Discussion

These observations provide a snapshot of the presence and breeding activity of vultures in the Sahelian grassland zones of eastern Niger and central Chad, primarily during the period 2010 to early 2013. Vultures were recorded in 61 of 121 (50%) half-degree squares visited, within a zone bounded by the Sudanian belt to the south and the Sahara to the north. Confirmed tree-nest breeding locations for Rüppell's and Lappet-faced Vultures were found in 13 half-degree grid squares spread widely through the survey region, with suspected breeding in a further two grid cells. In addition, indications of active Rüppell's Vulture colonies were observed around granitic inselbergs in at least eight locations visible from major roads in six half-degree squares in Chad. Breeding by White-headed Vulture was suspected at one location. In Niger, the Gadabeji Game Reserve (protected since 1955) and the newly created Termit Tin Toumma National Nature Reserve emerge as important locations for breeding vultures. In Chad, the eastern Ouadi Rimé-Ouadi Achim Game Reserve also supports important breeding sites for vultures. The Bahr al Ghazal, particularly its southern end, appears disproportionately well frequented by several vulture species, including migrant Egyptian Vultures, especially in the wet season when livestock concentrations are high. The absence of breeding records from the Chadian Manga, where one of the largest assemblages of vultures was encountered, is probably an artefact of visiting the area only in August 2010, when breeding is not expected. A dry-season survey of this area may change this picture. Finally, although we have experience of migrant Eurasian Griffon Vultures *Gyps fulvus* further west in sub-Saharan Africa, none was positively identified by us during these surveys.

The global encounter rates (Table 2) provide a very basic measure of relative abundance. While noting reasons for being cautious in comparing our data to those of dedicated road counts (see Methods), the combined encounter rate for all six species (7.2 vultures / 100 km) falls within the estimated range for comparative abundance for the same six species (7.9 vultures / 100 km + / - S.E. 2.3) based on 12 transects across the Sahel of Mali and western Niger in 2004 (Thiollay 2006b). This implies that vulture abundance may be broadly similar between the two regions. The figures from Mali and western Niger represent a >90% reduction since the early 1970s. Although we lack similar data from the 1970s from our study area, earlier descriptions of vultures of Chad (e.g. Salvan 1968) hint at the possibility of a similar trajectory. Scholte (1998) reported a more optimistic interpretation based on spot counts at carrion and waterhole assemblies in central Chad in the early 1990s, but these point data are not comparable with transect-based information.

The current study included significant areas away from roads and development, where traditional livestock presence and remoteness could imply favourable conditions for vultures. However, interpretation is complicated by several factors well beyond the scope of this study. For example, the distribution of human activity is clearly significant to Hooded Vultures in West Africa, but the interaction is less clear-cut for larger species. It is possible that road counts could lead to slightly inflated vulture counts if livestock owners tend to move animals along corridors determined by vehicle routes, or perhaps more likely, vehicle routes have become established along traditional livestock routes between population centres. If so, over many years these may have been preferentially patrolled by foraging vultures. Observations of vultures might be further reinforced as they evidently take advantage of pools that form in roadside borrow pits, themselves the product of road-building. If such positive bias is operating, it would not affect the results of data comparing different road counts, but might affect comparison between 'on-road' and 'off-road' elements.

Our results confirm that Sahelian grasslands still constitute breeding habitat for the two largest species, Rüppell's and Lappet-faced Vultures. Although at one stage doubted (Mundy *et al.* 1992), tree-nesting by Rüppell's Vulture in Chad

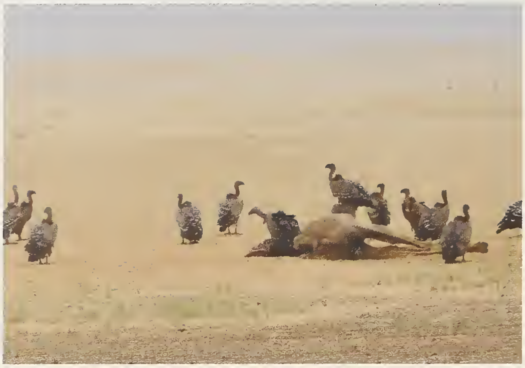

Figure 14. Rüppell's Vultures *Gyps rueppelli* at camel carcass, Termit, Niger, November 2008 (Thomas Rabeil)

Vautours de Rüppell *Gyps rueppelli* sur une carcasse de dromadaire, Termit, Niger, novembre 2008 (Thomas Rabeil)

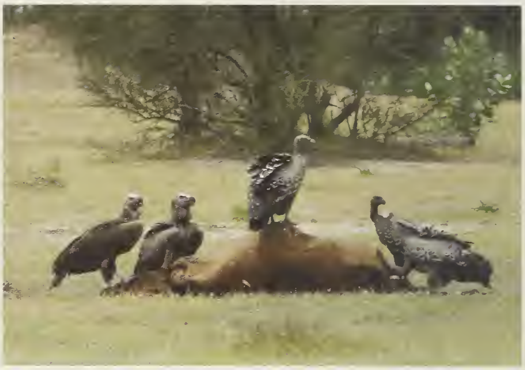

Figure 15. Lappet-faced *Torgos tracheliotos* and Rüppell's Vultures *Gyps rueppelli* at cow carcass, Bahr Al Ghazal, Chad, September 2011 (Tim Wacher)

Vautours oricou *Torgos tracheliotos* et de Rüppell *Gyps rueppelli* sur une carcasse de vache, Bahr Al Ghazal, Tchad, septembre 2011 (Tim Wacher)

was first reported by Salvan (1968) and has since been consistently reported from the Sahel in general (Newby 1979, Morel & Morel 1990, Kemp 1994, Sørensen *et al.* 1996; W. Mullié pers. comm.). Tree-nesting by Rüppell's Vulture has been documented in detail, at W National Park in Niger, by Rondeau *et al.* (2006). We photographed downy young tended by adult Rüppell's Vultures in at least 14 tree nests. As at W National Park, this eliminates the possibility that they were only using the nests of other species for roosting. We also confirmed Rüppell's Vultures at typical cliff-face situations in Chad as reported by Scholte (1998), although we did not investigate nesting behaviour in these cases.

Where conditions are favourable, such as the Termit Massif, Lappet-faced Vultures nest in clusters. Observations at Gadabeji and in OROAGR suggest tree-nesting Rüppell's Vulture also show local clustering. Lappet-faced Vulture is considered a solitary or 'territorial' nester, with mean nest spacing of 3.2 km (Zimbabwe) to 4.2 km (Serengeti), although closer spacing occurs where 'the species is abundant' in Chad (Shimelis *et al.* 2005). Tree nest spacing of 3–4 km is also typical in Saudi Arabia (Shobrak 2011). Tree availability is clearly a significant factor at Termit, as there are almost no trees in the surrounding desert away from the massif. But, while spacing is influenced by nest site availability (as it is for cliff colonies), the observed spacing at Termit is notable in that it enables the vultures to establish visual contact with neighbouring pairs as soon as they rise to forage. This is also true in Gadabeji and OROAGR, where some nests are in sight of each other at ground level. The efficient establishment of a search network has long been assumed to be an important feature of vulture foraging behaviour (Jackson *et al.* 2008) and we speculate that it might also be an important aspect of tree-nest selection for both species in the Sahel.

Our data suggest the possibility of differing preference in nest-tree species selection by two vulture species, with Rüppell's Vulture perhaps preferring *Balanites aegyptiaca* relative to Lappet-faced Vulture (Table 3). However, more detailed information on tree species availability by site is required to test this. Vulture tree nests are also exploited by smaller birds as sources of shade and perhaps insects, while some nest directly below the 'canopy' of the nests. Notably Swallow-tailed Kites *Chelictinia riocourii* were observed nesting directly beneath an active Lappet-faced Vulture nest containing an adult with chick in OROAGR (March 2013) and possibly under a Rüppell's Vulture nest with an adult and chick in Gadabeji (March 2010).

A close association between vultures and human activity in the Sahel through high reliance on livestock carcasses has been noted (Scholte 1998) and examples of livestock being significant attractors of vultures have recently been demonstrated at large scales with satellite-tracking of White-backed Vultures in southern

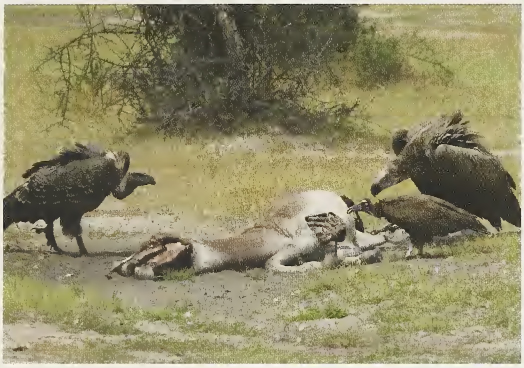

Figure 16. Rüppell's *Gyps rueppelli*, Hooded *Necrosyrtes monachus* and Lappet-faced Vultures *Torgos tracheliotos* at donkey carcass, Bahr Al Ghazal, Chad, September 2011 (Tim Wacher)

Vautours de Rüppell *Gyps rueppelli*, charognard *Necrosyrtes monachus* et oricou *Torgos tracheliotos* sur une carcasse d'âne, Bahr Al Ghazal, Tchad, septembre 2011 (Tim Wacher)

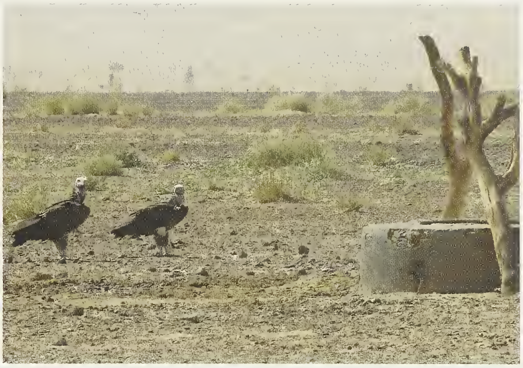

Figure 17. Lappet-faced Vultures *Torgos tracheliotos* at man-made well, Termit Massif, November 2007 (John Newby)

Vautours oricou *Torgos tracheliotos* près d'un puits traditionnel, Massif de Termit, novembre 2007 (John Newby)

Africa (Phipps *et al.* 2013). In this study, vultures were observed at carcasses on 21 occasions—sheep or goats in six cases, camels seven times (Fig. 14), cows four times (Fig. 15), donkeys three times (Fig. 16), and a Dorcas Gazelle once. It is possible that large livestock carcasses are more likely to attract observer attention, leading to over representation compared to smaller food items. However, livestock are generally far more abundant than wildlife and these figures further indicate that livestock are very important to vultures in this region. Corrected for differences in body size (using typical live weights of adults of each food species), livestock potentially contributed more than 99% by mass to vulture food sources. In nearly all surveys both Rüppell's and Lappet-faced Vultures were observed drinking at wells, sometimes using crude metal troughs filled by hand, but mostly from the associated spillage (Fig. 17). Further south, all six species have been noted at temporary pools in roadside borrow pits. Thus, opportunities for exposure to human activity are many, including to veterinary products in carcasses, rubbish around wells and roadsides, and general hunting risk from simple proximity and exposure on easily approached tree nests.

The main reason for plummeting vulture numbers in South Asia has been ascribed to renal failure as a direct side effect of ingesting the widely used veterinary anti-inflammatory drug, Diclofenac, at livestock carcasses (Oaks *et al.* 2004). Information on the prevalence of these drugs is less well established in West Africa and underlying causes of decline generally poorly known. Large stones were observed in nine vulture nests (11% of all known nests) at Termit and the same phenomenon has been recorded in Saudi Arabia (Shobrak 2011). In both cases this has been attributed to intentional destruction by people. Rondeau & Thiollay (2004) review potential causes of decline in West Africa, including speculation on possible changes in carcass availability (balance between growing numbers of livestock but improved management of carcass disposal) and indirect poisoning during predator control or use of pesticides. Vulture persecution and collection for meat or the traditional medicine market is also noted in some parts of the Sahel (see Nikolaus 2001, Ogada *et al.* 2011). Vulture grease, brains, heads, feet and feathers are still widely used as cures for rheumatism and diarrhoea, as well as in various powders and potions to increase clairvoyance (JN pers. obs.). Finally, the impact of recreational rock climbing by tourists was considered in relation to cliff-nesting colonies of Rüppell's Vulture in Mali and western Niger (Rondeau & Thiollay 2004) and it is evident that these activities occur at a low level in Chad also, though no interaction with vulture colonies has been noted.

In summary, our surveys provide baseline information on vulture distribution across a large zone rarely visited by ornithologists. At the broadest level, encounter rates were similar to those of earlier surveys on a similar scale and at similar latitudes to the west. Our observations also demonstrate that tree-nesting by Rüppell's Vulture is widespread across the Sahel. Although this greatly enlarges the species' potential breeding range, the relative importance and success rates for tree-nesting Rüppell's Vultures (compared to cliff-nesting birds) are unknown. It is also interesting to speculate whether young that fledge from tree nests show any nest-site preference as adults. Only targeted surveys during the nesting period (January–March) and long-term studies can resolve these questions. It is encouraging there is a significant breeding population of Lappet-faced Vultures centred on the Termit Massif, which is now officially protected, with a newly formed team of community rangers active in promoting wildlife protection. Breeding by at least two, probably three, vulture species in the small but comparatively long-established reserve of Gadabeji in Niger, and in the very large Ouadi Rimé-Ouadi Achim reserve in Chad provides further evidence that protected areas are also important for vultures in the Sahel, as already noted for the West African Sudan zone (Thiollay 2006b). Our results also emphasise the degree to which the fortunes of these large, slow-breeding species are tied to human activities and attitudes. In addition to eliminating the practice of poisoning carcasses, whether deliberately for predator 'control' or inadvertently via unsuitable veterinary products, protection of these species would benefit from promoting the view that vultures are of greatest value to the community alive. As noted by Ogada *et al.* (2012), they provide an effective and free sanitation service, probably diminish potential disease reservoirs for people, livestock and wildlife, and contribute to the optimal functioning of a fragile ecosystem.

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First records for Angola of Yellow-throated Cuckoo *Chrysococcyx flavigularis*, South African Cliff Swallow *Petrochelidon spilodera* and Red-tailed Leaflove *Phyllastrephus scandens*

Michael S. L. Mills[a,b], Pedro Vaz Pinto[c] and Jorge M. Palmeirim[d]

Primeiros registos para Angola do cuco-de-garganta-amarela *Chrysococcyx flavigularis*, andorinha-sul-africana *Petrochelidon spilodera* e chiricuata-de-cauda-vermelha *Phyllastrephus scandens*. Desde o resumo de Dean sobre as aves de Angola em 2000, 13 novas espécies foram acrescentadas à lista de Angola. Aqui fornecemos descrições para mais três espécies registadas no extremo norte do país durante 2011. O cuco-de-garganta-amarela *Chrysococcyx flavigularis* foi visto e o seu som gravado em floresta húmida a cerca de 30 km a noroeste de Quitexe, na província do Uíge; A andorinha-sul-africana *Petrochelidon spilodera* foi visto sobre o rio Luele na lagoa Carumbo na província da Lunda Norte, juntamente com andorinhas-estriadas-grandes *Cecropis cucullata*; e a chiricuata-de-cauda-vermelha *Phyllastrephus scandens* verificou-se ser comum em floresta pantanosa na região da lagoa Carumbo. Todas as três espécies provavelmente ocorrem regularmente no país, sendo a andorinha uma ave migratória de passagem ou um visitante da época seca.

Summary. Since Dean's summary of Angolan birds in 2000, 13 new species have been added to the Angolan list. We provide descriptions for three additional species recorded from the far north of the country during 2011. Yellow-throated Cuckoo *Chrysococcyx flavigularis* was seen and sound-recorded in rainforest *c*.30 km north-west of Quitexe in Uíge province; South African Cliff Swallow *Petrochelidon spilodera* was seen over the Luele River at Lagoa Carumbo in Lunda Norte province, in the company of Greater Striped Swallows *Cecropis cucullata*; and Red-tailed Leaflove *Phyllastrephus scandens* was found to be common in swamp forest in the Lagoa Carumbo area. All three species probably occur regularly in the country, with the swallow being a passage migrant or dry-season visitor.

Since the publication of Dean's (2000) summary of the Angolan avifauna, 13 new birds have been added to the Angolan list; 12 species as summarised by Mills & Dean (2007) plus European Oystercatcher *Haematopus ostralegus* (Simmons *et al.* 2009). Two other species have been reported, but should be treated as unconfirmed. Crowned Cormorant *Phalacrocorax coronatus* was claimed from the Kunene River mouth on the border with Namibia and the adjacent sea (Paterson *et al.* 2009), but Reed Cormorant *P. africanus* was excluded only on the basis that the birds were observed along the coast, despite reports that Reed Cormorant is regular in northern coastal Namibia and is sometimes observed at sea (Hockey *et al.* 2005), and none of the diagnostic plumage differences were mentioned. In addition, Bob-tailed Weaver *Brachycope anomala* was reported from northern Angola (Sinclair 2007), although the habitat and altitude where the observation was made is more compatible with Compact Weaver *Ploceus superciliosus* (Fry & Keith 2004) and the author could not distinguish it from this species when questioned (I. Sinclair *in litt.* 2011).

Due to the paucity of ornithological work conducted during the long civil war period from 1974 to 2002 (Ryan *et al.* 2004) and the lack of bird records from many parts of the country (Dean 2000), further surveys are likely to reveal more new species, especially in border areas. Here we report three new species for the country, all from the far north-east or north-west (see Appendix for a full list of new species subsequent to Dean 2000).

Yellow-throated Cuckoo

Yellow-throated Cuckoo *Chrysococcyx flavigularis* is described as very rare in lowland forest in the Upper Guinea region, and rare to frequent in the Central African forests of Cameroon, Gabon, Democratic Republic of Congo, south-west Sudan and south-west Uganda (Irwin 1988). It inhabits primary forest canopy, forest edges, clearings, secondary and gallery forests, and, occasionally, densely wooded savanna (Irwin 1988). There is no previous record from Angola (Dean 2000).

On 6–10 October 2011 MSLM explored forests on the northern escarpment of Angola in the provinces of Kwanza Sul and Uíge, together with M. Rogerson and C. Hines. Approximately 30 km north-west of Quitexe (07°57'S 15° 02'E) in Uíge province, they found an active logging concession with access to substantial tracts of lowland rainforest. They established camp at 07°44'50"S 14°50'04"E (650 m altitude) and conducted preliminary bird surveys in the surrounding forest on 8–9 October.

On the early morning of 8 October MSLM observed two young *Chrysococcyx* cuckoos that were very buffy below, but did not check the colour of the feet, so although he suspected that they were Yellow-throated Cuckoos he had some doubts. However, in the early afternoon of the same day, he heard the distinctive song of a male Yellow-throated Cuckoo in the distance. A short bout of playback of pre-recorded song attracted a male Yellow-throated Cuckoo that called strongly overhead, permitting him to make sound-recordings and providing all three observers with reasonable views of its bright yellow throat bordered by green. Part of the recording can be downloaded at http://www.birdsangola.org/downloads.htm.

This record is the first for Angola and, given the sighting of the two juveniles, the species almost certainly breeds here. Interestingly, the species' only known host, Grey-throated Tit-Flycatcher *Myioparus griseigularis* (Mills *et al.* 2007) was also seen several times in the area. Other host species are thought to include members of the genus *Illadopsis* (Brosset & Erard 1974); both Brown Illadopsis *I. fulvescens* and Scaly-breasted Illadopsis *I. albipectus* were found at the same locality. Anyone visiting lowland forest in northern Angola should be alert to the potential presence of this species.

South African Cliff Swallow

South African Cliff Swallow *Petrochelidon spilodera* breeds primarily on the inland plateau of South Africa in August–April, and spends the non-breeding period in the lower Congo Basin of Central Africa, with most records at this season from the western Democratic Republic of Congo (Earlé 1987, Keith *et al.* 1992, Earlé 1997, Spottiswoode 2005). It has been observed on passage in Botswana, Namibia, Zambia and Malaŵi (Earlé 1987, 1997, Dowsett *et al.* 2008). Despite Sinclair & Ryan (2003) showing the species as occurring throughout the eastern two-thirds of Angola, and Spottiswoode (2005) listing it for the country, there was as yet no record of South Africa Cliff Swallow (Traylor 1963, Dean 2000), despite being expected to 'occur on passage in eastern Luanda Norte, Luanda Sul and Moxico' (Dean 2000).

Between 29 April and 5 May 2011 we visited the Lagoa Carumbo area, Luanda Norte province (07°48'S 19°57'E; 840 m), north-east Angola, as part of a biodiversity inventory team (Huntley 2011, Mills & Dean in press). For five days MSLM conducted bird surveys in the areas surrounding our base camp (07°45'11"S 19°57'24"E; 790 m) on the banks of the Luele River, including open grassland en route to Capaia (08°20'S 20°14'E; 950 m), *c.*70 km to the south.

During this period, large numbers of swallows (Hirundinidae) were present in the area, including mixed-species flocks composed mostly of Greater Striped Swallow *Cecropis cucullata.* At around midday on 30 April MSLM was observing one such flock drinking from the Luele River near the base camp, among which he spotted a rufous-rumped, square-tailed swallow which appeared to have black speckling on the throat, matching the description of South African Cliff Swallow (Keith *et al.* 1992). Unfortunately the bird disappeared before he could confirm its identity, so he returned to the same place at midday on 1 May. This time he had prolonged close views of at least two South African Cliff Swallows. Their undertails could be observed clearly and showed no white, the upper breasts had dark markings forming a faint breast-band, and they were stocky compared to Red-throated Cliff Swallow *P. rufigula*, the only congeneric previously recorded in the area (Dean 2000). On 2 May, while travelling between Lagoa Carumbo and Capaia, he observed another South African Cliff Swallow flying over open grassland on a flat sandy plateau, with a large flock of mostly Greater Striped Swallows (07°51'51"S 20°02'26"E; 1,000 m).

On 5 May, at Capaia, MSLM observed a large flock of Red-throated Cliff Swallows, on which he could clearly see the white patches in the undertail. They were also slimmer than the South

African Cliff Swallows seen at Lagoa Carumbo and lacked the dark markings on the breast.

These are the first two records of South African Cliff Swallow for Angola, although given its breeding and non-breeding ranges the species can be expected to occur regularly on passage throughout eastern Angola, and it is not impossible that some are resident in north-eastern Angola in May–August. Observers should check for the species in mixed flocks with Greater Striped Swallow, with which they seem to associate (Dowsett-Lemaire *et al.* 1993; MSLM pers. obs).

Red-tailed Leaflove

Red-tailed Leaflove *Phyllastrephus scandens* (= Leaflove *Pyrrhurus scandens*) is a Central and West African forest species that favours thickets and forest near water, especially swamp forest (Keith *et al.* 1992). Although it has never been recorded in Angola (Traylor 1963, Dean 2000), it is known to occur close to the Angolan border in southern Democratic Republic of Congo (Schouteden 1964). While the species can be difficult to see (MSLM pers. obs.), its loud and distinctive call usually betrays its presence (Keith *et al.* 1992, Sinclair & Ryan 2003).

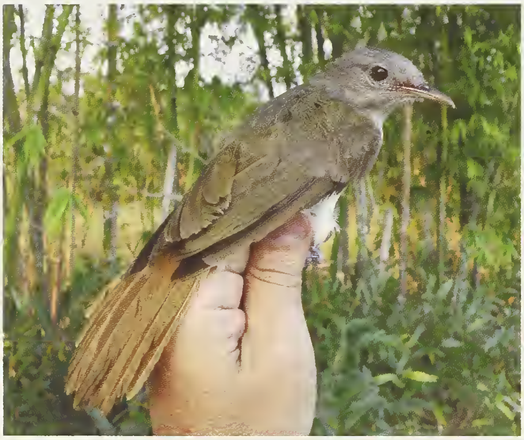

Figure 1. Red-tailed Leaflove *Phyllastrephus scandens*, Capaia, Angola, 5 May 2011; the pale grey head, generally pale underparts and russet tail are characteristic of the species, which was found to be common in swamp forests of the Lagoa Carumbo area in the north-east of the country (Jorge Palmeirim)

Figura 1. Chiricuata-de-cauda-vermelha *Phyllastrephus scandens*, Capaia, Angola, 5 de maio de 2011; a cabeça cinzento-clara, partes inferiores de forma geral pálidas e cauda avermelhada são características da espécie, que se verificou ser comum nas florestas pantanosas do nordeste do país (Jorge Palmeirim)

During the aforementioned biodiversity inventory expedition to Lagoa Carumbo we heard Red-tailed Leaflove daily in swamp forest, either along the Luele River near Lagoa Carumbo or along the Lóvua River at Capaia. In addition, MSLM saw one along the Luele River and PVP & JP mist-netted another along the Lóvua River (Fig. 1).

These are the first records of Red-tailed Leaflove for Angola. It has probably remained unrecorded because historical ornithological work in this area consisted of only two collecting trips (Dean 2001, Mills & Dean in press), and the species' favoured swampy habitat is difficult to access. We suspect that it is more widespread in Lunda Norte, and that the species may occur in any patches of swamp forest in the province.

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Appendix. Additions to Dean's (2000) species list for Angola.

Apêndice. Adições à lista de espécies para Angola de Dean (2000).

Species	Reference	Date	Locality
Northern Royal Albatross *Diomedea (epomorpha) sanfordi*	Lambert (2001)	2 Nov 1985	Adult off Namibe (15°14'S 11°40'E)
Spectacled Petrel *Procellaria (aequinoctialis) conspicillata*	Lambert (2001)	11 Oct 1985	One off Namibe (15°09'S 11°37'E)
Red-billed Tropicbird *Phaeton aethereus*	Lambert (2001)	29 May 1968	Adult off Namibe (15°49'S 10°41'E)
White-tailed Tropicbird *Phaeton lepturus*	Lambert (2001)	28 Apr 1986	Adult off Cuanza Sul (10°57'S 11°22'E)
Lesser Spotted Eagle *Aquila pomarina*	Meyburg *et al.* (2001)	26 Feb 1994	Satellite-tagged immature west of Mupa, Cunene (16°11'S 15°14'E)
European Oystercatcher *Haematopus ostralegus*	Simmons *et al.* (2009)	25 Jan 2009	One, Baia dos Tigres, Namibe (16°36'S 11°43'E)
Red Phalarope *Phalaropus fulicarius*	Lambert (2001)	21 Oct 1974	79 adults off Namibe (15°26'S 11°30'E)
Black-headed Gull *Chroicocephalus ridibundus*	Lambert (2001)	15 Oct 1986	Adult in partial breeding plumage at Luanda
Greater Crested Tern *Thalasseus bergii*	Dean *et al.* (2002)	no date	Regular in far south-western Namibe province
Little Tern *Sternula albifrons*	Lambert (2001)	9 Oct 1988	Adult in breeding plumage at Luanda
Lemon Dove *Columba larvata*	Mills & Dowd (2007)	23 Sep 2005	Kumbira forest, Cuanza Sul (11°09'S 14°17'E)
Yellow-throated Cuckoo *Chrysococcyx flavigularis*	this study	8 Oct 2011	Male 30 km north-west of Quitexe, Uíge (07°45'S 14°50'E)
Pink-billed Lark *Spizocorys conirostris*	Mills (2006)	8 Aug 2005	Two near Xangongo, Cunene (16°44'S 15°08'E)
South African Cliff Swallow *Petrochelidon spilodera*	this study	1 May 2011	Lagoa Carumbo, Lunda Norte (07°45'S 19°57'E)
Red-tailed Leaflove *Phyllastrephus scandens*	this study	30 Apr 2011	Lagoa Carumbo, Lunda Norte (07°45'S 19°57'E)
Singing Cisticola *Cisticola cantans*	Dean *et al.* (2003)	10 Mar 1958	Female collected by G. Heinrich 60 km north of Sombo, Lunda Sul (08°44'S 20°59'E)

Re-identification of a booby *Sula* sp. at Lagos, Nigeria, in July 1970

D. I. M. Wallace

Réidentification d'un fou *Sula* sp. à Lagos, Nigeria, en juillet 1970. Grâce à des références photographiques récentes, un jeune fou *Sula* sp. observé à Lagos, Nigeria, le 11 et 12 juillet 1970 est réidentifié comme un Fou à pieds rouges *S. sula* juvénile. Ceci devient la première mention de l'espèce pour l'Atlantique de l'Est et l'Afrique de l'Ouest au nord de l'équateur. Il s'avère qu'un dessous de l'aile entièrement sombre, récemment présenté comme typique du Fou à pieds rouges immature, n'est pas un caractère sûr.

Four decades ago, seabird identification was a much more difficult exercise due to the lack of detailed literature. So, when at 08.30 hrs on 11 July 1970, I found a small immature booby *Sula* sp. fishing with Black Terns *Chlidonias niger* at Lagos harbour mouth, Nigeria, I was flummoxed. All I knew for sure was that it was not a young Northern Gannet *S. bassana*. Referring to Bannerman (1953), I deduced that the only likely small *Sula* was Brown Booby *S. leucogaster*. As my bird appeared to fit an immature of that species by showing 'a faint indication of adult plumage pattern', I published it as *S. leucogaster* (Wallace 1973).

About 1992, in correspondence with the authors revising the BOU Nigeria Checklist, I pointed out that I had not eliminated a brown-morph Red-footed Booby *S. sula*. Regrettably Elgood *et al.* (1994) sustained my bird as *S. leucogaster*. By 2005, three bouts of seawatching in Oman had brought me many Masked Boobies *S. dactylatra* and at last one certain *S. leucogaster*. Neither species recalled the Lagos booby. On 30 June 2011, I refound my seven drawings (Fig. 1) and was able to compare them with the Sulidae illustrations in Beaman & Madge (1998). It was the figure of a juvenile *S. sula* that let the penny of my Lagos booby begin to drop, and finally came the telling photographs of *sula* in Crossley (2011). These included a warm brown juvenile showing soft striations on its back and pale vanes on its inner primaries, which virtually matched my long-debated booby. The following description comes from my field sketches and a brief account sent to the Nigerian Ornithological Society in 1970:

'A small *Sula* feeding in the always fish-rich interface of ocean and lagoon, watched from the east mole of the harbour mouth through 9 × 35 binoculars at 50–300 yards in dull sunlight for 30 minutes (and intermittently up to *c.*12.00 hrs on the next day).

Very agile in flight, able to lift off immediately from water surface and fishing by shallow dives on half-folded wings after slow search glides with wings held forward like Cory's Shearwater *Calonectris diomedea*; even able to 'stall' with feet down and held out. When settled, sat high with head held up and tail well clear of water. Structure typical of family but tail just wedge-shaped, lacking central point.

Head, neck, upper chest, shoulders and most upper wing coverts dusky-brown; back, rump, upper-tail coverts and greater coverts slightly paler, warmer buff-brown, with pale shade over last tract most obvious next to scapulars; flight feathers dusky-brown becoming dull black on primaries and showing pale vanes on at least five innermost quills; lower chest, underbody and obvious underwing panel from wingpit to inner hand not sharply demarcated but paler than head and upper parts, all pale buff except for browner fore upper flanks. Pale wing lining looked narrower when wings angled for dive. Tail dusky-brown. No sign of pale speckling but slightly darker soft striations showed on paler tracts, particularly between wings and over underbody. Bill just paler than head; eye not obvious; legs and feet paler than dark undertail, buffish-grey.'

To claim the bird as a certain Red-footed, I must explain its dull, patently not red feet. In Harrison (1983) and Enticott & Tipling (1997), those of juveniles are described respectively as 'yellowish-grey' and 'greyish-pink', but in Beaman & Madge (1998), they were noted as 'blackish ... soon becoming reddish'. In a well-lit photograph of two perched juveniles, their legs and feet are

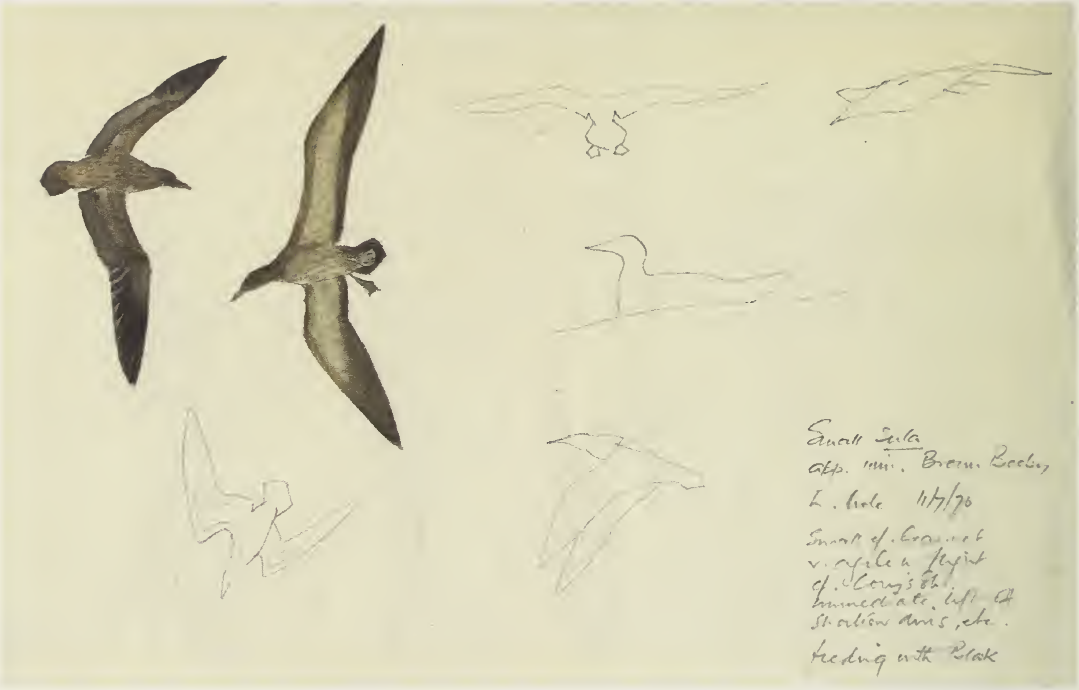

Figure 1. Original drawings of the immature booby *Sula* sp. observed at Lagos harbour mouth, Nigeria, 11 July 1970 (D. I. M. Wallace)

Dessins originaux du fou *Sula* sp. immature observé à l'embouchure du port de Lagos, Nigeria, 11 juillet 1970 (D. I. M. Wallace)

chalky flesh (Enticott & Tipling, 1997: pl.115[9]) and in three November juveniles, they are fully flesh tinged pink (Carr 2011). Clearly, the initial colour of legs and feet in Red-footed Booby varies but is never the bright red of adults in all morphs.

The recent synthesis of characters in van Duivendijk (2010) mentions that a 'completely dark underwing' is characteristic of immature *sula*. However, Harrison (1983) states that the underwing pattern is 'though variable between white and brown morphs unlike any other booby' and both of his illustrations of the underwings of brown morphs are essentially brown vaguely lined grey or blackish, and show pale quill vanes. Harrison (1983) also stresses that all *sula* fledge as brown morphs. In Enticott & Tipling (1997) the underwing of such juveniles is described as 'dark with paler greater coverts', progressing to 'patchy with no definite pattern'. Their Pl. 115(5) of a brown-morph adult from the Galápagos fully illustrates the entire underwing: the tips of the greater coverts, all the median and lesser coverts, the primary-coverts and the inner webs of the

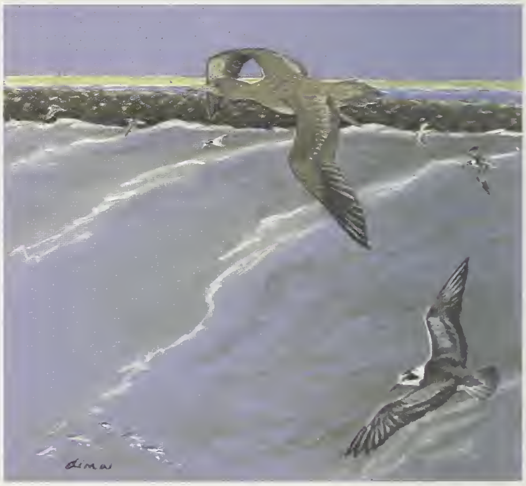

Figure 2. Retrospective painting of juvenile Red-footed Booby *Sula sula* with Black Terns *Chlidonias niger*, feeding on small fish in Lagos harbour mouth, Nigeria, 11 and 12 July 1970 (D. I. M. Wallace)

Peinture rétrospective d'un Fou à pieds rouges *Sula sula* juvénile avec des Guifettes noires *Chlidonias niger*, se nourrissant de petits poissons à l'embouchure du port de Lagos, Nigeria, 11 et 12 juillet 1970 (D. I. M. Wallace)

primaries are pale brown to buff and across most of the 'arm' concolourous with the underparts, thereby producing an even more extensively pale wing-lining than I observed on the Lagos bird. As for other immatures, photographs of partially white birds (from two oceans) show rows of quite conspicuous pale tips to the median coverts and hints of other pale marks on the outer primary-coverts and primary bases. They clearly lack the marked pale off-white panels of immature *leucogaster* and *dactylatra*, but are not 'completely dark'.

The remarkably variable morphology of *S. sula* has had a scant press since Murphy (1936), but it seems clear that not all dark-morph juvenile *sula* are buff-brown. At least three photographs (referred to above and from three oceans) show birds that are ash-grey with a pinkish-buff wash and all lack even slight striations.

My belated claim for the Lagos bird to be treated as the first record of *S. sula* in the East Atlantic and West Africa north of the equator rests on five well-established characters: its small size, nimble flight and feeding behaviour, generally uniform appearance (in dark morphs) and dull feet, the last compatible with a juvenile. Its appearance coincided with an arrival of 50 Damara Terns *Sterna balaenarum* from southern Africa but its origin is debatable. The nearest breeding populations of *S. sula* to Lagos lie south of the equator on Ascension and the Brazilian island of Fernando de Noronha, and these are considered to be the likely source of at least three recent records from the coast of Namibia (P. Ryan *in litt.* 2012). It follows that an adult white-tailed brown morph at a colony of *S. leucogaster* in the Cape Verde archipelago in August 1986 (Snow & Perrins 1998) becomes only the second in the East Atlantic north of the equator.

Acknowledgements

I am grateful to the African Bird Club for treating my 41-year-old re-identification with respect and thank Guy Kirwan, Ron Demey and Peter Ryan for their improvements of the content and text.

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First photographs of Grey Ground Thrush *Zoothera princei* for Nigeria, from Omo Forest Reserve

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Premières photos de la Grive olivâtre *Zoothera princei* pour le Nigeria, de la Forêt classée d'Omo. Le 30 mai 2012, deux Grives olivâtres *Zoothera princei* ont été capturées et photographiées dans la Forêt classée d'Omo, au sud-ouest du Nigeria. Bien que l'espèce ait été observée sur ce site il y a 15 ans, ceci est la première preuve photographique de sa présence au Nigeria.

On 30 May 2012 at 10.00 hrs, two Grey Ground Thrushes *Zoothera princei* were mist-netted simultaneously at a single location (06°55’90”N 04°19’77”E) near Erin Camp in primary forest within Omo Forest Reserve (Fig. 1). The birds were caught in the middle pockets of the mist-nets 1.2 m above ground. When approaching the nets, we heard a repeated high-pitched call, similar to that described by Borrow & Demey (2001).

The only previous report of Grey Ground Thrush in Omo Forest Reserve was by Green *et al.* (2007), who observed and subsequently mist-netted the species near Erin Camp in March–April 1997; no description was given. Prior to this, there was just a single unconfirmed sight record for Nigeria (Umuagwu, August 1953: Elgood *et al.* 1994).

Grey Ground Thrush is a very secretive species of moist lowland forest from eastern Sierra Leone, Liberia and Côte d'Ivoire to Ghana, and in Cameroon, Gabon, eastern Democratic Republic of Congo and western Uganda (Collar 2005). It forages by hopping on the forest floor searching the leaf litter (Borrow & Demey 2001). Although it is considered to be rare and decreasing due to ongoing habitat destruction and fragmentation, the species is currently classified as of Least Concern because it does not approach the threshold for Vulnerable under the range size criterion (BirdLife International 2012). Omo Forest, an Important Bird Area and World Biosphere Reserve, is being severely degraded due to excessive exploitation of timber, agricultural encroachment and other anthropogenic pressures (Ezealor 2001, Olmos & Turshak 2009).

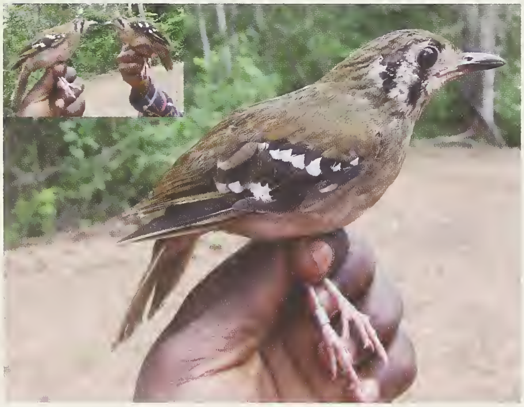

Figure 1. Grey Ground Thrush / Grive olivâtre *Zoothera princei*, near Erin Camp, Omo Forest Reserve, 30 May 2012 (Taiwo Crossby Omotoriogun).

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The National Centre for Biosystematics, Natural History Museum, University of Oslo, Norway, and the Research Council of Norway sponsored TCO's field work in Nigeria. Phil Hall provided useful information. Nicholas Wicks, Clifford Omonu and Stella Egbe assisted during field work. This is contribution no. 58 of the A. P. Leventis Ornithological Research Institute.

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How to see Madagascar Pochard *Aythya innotata*, the world's rarest duck

Michael S. L. Mills[a] *and Michael Rogerson*[b]

Comment voir le Fuligule de Madagascar *Aythya innotata*, le canard le plus rare au monde. La redécouverte, en 2006, du Fuligule de Madagascar *Aythya innotata* à Bemanevika, au nord-est de Madagascar, a donné une dernière chance de survie à l'espèce. Les revenus du tourisme sont nécessaires afin de démontrer aux communautés locales que la protection du site vaut la peine. Pour appuyer les efforts de conservation du Peregrine Fund et ses collègues, des informations sont données sur les moyens de visiter le site. À part l'occasion unique de voir le Fuligule de Madagascar dans la nature, le site offre la chance rare d'observer l'Effraie de Soumagne *Tyto soumagnei*. Des espèces des zones humides telles que le Canard de Meller *Anas melleri*, le Crabier blanc *Ardeola idae*, le Busard de Madagascar *Circus macrosceles*, le Râle de Madagascar *Rallus madagascariensis* et l'Amphilais tacheté *Amphilais seebohmi* sont également présentes, ainsi qu'une grande variété d'espèces forestières et de prairie. Une visite de 3–4 jours est fortement recommandée.

Summary. The rediscovery of Madagascar Pochard *Aythya innotata* at Bemanevika, north-eastern Madagascar, in 2006, has given the species a last chance at survival. Tourism-related income is needed to demonstrate to local communities the benefits of site protection. In support of the conservation efforts of The Peregrine Fund and their co-workers, information is provided on how to visit the site. Besides the unique opportunity of seeing Madagascar Pochard in the wild, the site offers the rare chance to observe Red Owl *Tyto soumagnei*. Wetland species such as Meller's Duck *Anas melleri*, Malagasy Pond Heron *Ardeola idae*, Malagasy Harrier *Circus macrosceles*, Madagascar Rail *Rallus madagascariensis* and Grey Emutail *Amphilais seebohmi* are also present, plus a wide range of forest and grassland species, making a 3–4-day visit highly worthwhile.

The sensational rediscovery of Madagascar Pochard *Aythya innotata* in November 2006 at a remote lake in north-east Madagascar has given the species a last chance at survival (René de Roland *et al.* 2007). An all-encompassing conservation programme is underway. Further research on the remaining population is being conducted to determine what its ecological requirements are, especially for successful breeding, and what factors make the site suitable for this sensitive species. Further searches for suitable habitat (both to release captive-bred birds and locate additional wild populations) are being planned. Site conservation is being pursued with the local community and formalisation of site protection is being sought with the government, while a captive-breeding facility has been established, where wild-collected eggs are being hatched and chicks raised to adulthood, and the first captive-raised birds have now produced young. All of this work is being undertaken by a partnership between The Peregrine Fund, the Durrell Wildlife Conservation Trust and The Wildfowl and Wetlands Trust.

The site where the pochard lakes are situated, called Bemanevika, is remote and difficult to reach. Local people, despite being few in number, are having marked impacts on the habitat mostly through grazing of cattle and lighting of grassland fires. Madagascar's habitats appear to have little resistance to these disturbances, and activities that would hardly register as disturbing on mainland Africa are pushing back forest limits, and resulting in increased run-off and siltation of the lakes on which the pochard lives. The Peregrine Fund has established a permanent research and conservation camp near the main village of Bemanevika, and is engaging the local community in an effort to convince them to protect the remaining forest.

In a country with a strong government, one might expect that responsibility for site protection for such rare species should fall on the administration, but Madagascar's government is leaving conservation efforts largely in the hands of NGOs. To these ends, the Peregrine Fund is keen to encourage more visitors to the area. In exchange for the privilege of visiting, visitors are expected to pay fees directly to the local community, rather than The Peregrine Fund. These fees will be used mainly to support biodiversity conservation, develop alternatives to subsistence farming methods that negatively affect the environment at the site and to create activities for generating some income for the local community.

On 5–8 November 2011, we visited Bemanevika, with the help of Lily-Arison René de Roland (Lily), head of The Peregrine Fund, Madagascar, on-site researcher Sam The Seing and research technician Loukman Kalavah.

Getting to Bemanevika

Prior to visiting, please liaise with The Peregrine Fund office in the capital Antananarivo ('Tana') to seek permission to stay at the research camp. Lily-Arison René de Roland can be contacted on lilyarison@yahoo.fr.

Getting to Bemanevika requires two full days of overland travel, whether you are arriving from Tana, Mahajanga or Antsiranana. The closest town with reasonable facilities is Antsohihy (14°54'S 47°59'E), situated on the main road *c*.430 km north of 'Tana' and 325 km south of Antsiranana (as the crow flies). It is a full day's drive from 'Tana' to Antsohihy (leave at sunrise and expect to arrive in the late afternoon), but the road is currently in good condition almost all the way, and in Antsohihy there are several comfortable hotels with air conditioning. Try Hotel Sofia or Le Paradisier Hotel on the southern outskirts of the town.

The second day of travel is rough and tiring, and requires a sturdy 4×4 vehicle with good ground clearance. From Antsohihy head first for Bealanana (14°33'S 48°45'E). Just north of Antsohihy a road branches east from the main road to Antsiranana at 14°51'35.3"S 48°05'20.6"E, climbing into the central highlands. Despite the recent edition of the Madagascar Bradt Travel Guide's (Bradt 2011) claim that a 'good road' links Antsohihy to Bealanana, *c*.120 km distant, this was not our experience. At first, the road is in reasonable condition with only the occasional wash out, but after *c*.50 km, as it starts to climb, the road becomes horribly pot-holed and, finally, rough, rocky and dusty. One should allow at least four hours to drive from Antsohihy to Bealanana, where it is possible to purchase last-minute supplies. However, only a small range of products and food is available here, so it would be preferable to bring everything that you'll need from 'Tana'.

From Bealanana it is 39 km to Bemanevika, which can be expected to take between 3.5 and five hours' drive under reasonable / dry weather conditions. Initially you should return along the main road in the direction of Antsohihy for *c*.2 km, before taking a right turn (left if coming from Antsohihy) at 14°32'55.0"S 48°44'11.5"E. Shortly afterwards one crosses a large river, which at the time of our visit had a very poorly maintained bridge, requiring us to carefully reposition wooden planks in order to get across safely (Fig. 1). From here one first travels along a gravel road, but this soon peters out to a rough track with many forks. It is advised to carry a GPS and upload a Garmin GPS file with the route, available on the Birds Angola website (www.birdsangola.org/downloads).

The entire journey from Bealanana to Bemanevika is slow and bumpy, dusty when the weather is dry, and muddy and slippery when wet. Numerous stream / river crossings and steep sections make the journey slow and difficult. Even with 4×4 you may get stuck if it has rained. During the wet season (December–April) the project staff members walk between Bealanana and Bemanevika over two days! Attempting the drive to Bemanevika after November is ill-advised, and probably the best months to visit are September and October, when the pochards are breeding and the area is fairly accessible, although even then early rains can be a problem.

For those wishing to do the journey on the cheap, it is possible, if somewhat uncomfortable, to reach Bealanana by public transport, with daily 'taxi brousses' making the journey from Antsohihy. But upon reaching Bealanana you will have to find private transportation. We have heard that other visitors have managed to hire motorbikes here to drop them at Bemanevika, but we are unable to provide details of how to go about this. It is much simpler hiring a vehicle from 'Tana' to bring you all the way to Bemanevika and back. We hired the services of Eugène Rakotobe (eliotlestar93@yahoo.fr), who drove us in his sturdy Toyota 4×4 with good ground clearance. He spoke reasonable English and navigated the difficult roads ably.

Alternatively, join an organised expedition with a bird tour company (Birding Africa are

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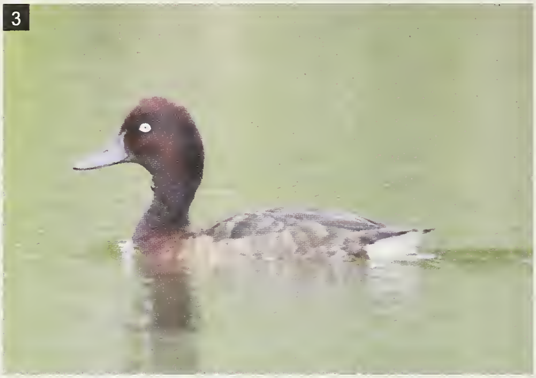

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Figure 1. Bridge near Bealanana on the road to Bemanevika, north-east Madagascar, November 2011 (Michael Mills)

Le pont près de Bealanana sur la route de Bemanevika, nord-est de Madagascar, novembre 2011 (Michael Mills)

Figure 2. Red Lake, Bemanevika, north-east Madagascar, November 2011 (Michael Mills)

Le Lac Rouge (Matsaborimena), Bemanevika, nord-est de Madagascar, novembre 2011 (Michael Mills)

Figures 3–4. Madagascar Pochards *Aythya innotata*, Bemanevika, north-east Madagascar, 5 November 2011 (Michael Mills)

Fuligules de Madagascar *Aythya innotata*, Bemanevika, nord-est de Madagascar, 5 novembre 2011 (Michael Mills)

Figure 5. Red Owl *Tyto soumagnei*, Bemanevika, north-east Madagascar, 5 November 2011 (Michael Mills)

Effraie de Soumagne *Tyto soumagnei*, Bemanevika, nord-est de Madagascar, 5 novembre 2011 (Michael Mills)

Figures 6–7. Swamp adjacent to Red Lake, where a pair of Malagasy Harriers *Circus macrosceles* breeds (female shown), Bemanevika, north-east Madagascar, 6 November 2011 (Michael Mills)

Le marais près du Lac Rouge, lieu de nidification d'un couple de Busards de Madagascar *Circus macrosceles* (à droite la femelle), Bemanevika, nord-est de Madagascar, 6 novembre 2011 (Michael Mills)

Figure 8. Rainforest (=Madagascar) Scops Owl *Otus rutilus*, Bemanevika, north-east Madagascar, 5 November 2011 (Michael Mills)

Petit-duc malgache *Otus rutilus*, Bemanevika, nord-est de Madagascar, 5 novembre 2011 (Michael Mills)

running one in 2014; see www.birdingafrica.com for details).

Bemanevika

Bemanevika is named after the main village in the area located at 14°22'00.0"S 48°35'05.6"E. The village is small and home to only *c.*60 adults.

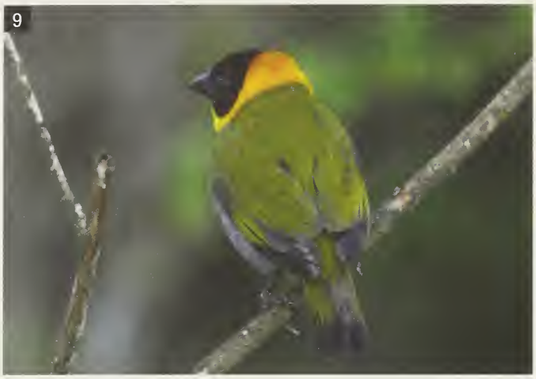
Just before the village a track branches off right and winds across grasslands towards the base camp at 14°20'54.5"S 48°34'47.5"E. There are four lakes in this area. The most important, and the only one on which the pochard breeds, is called 'Red Lake' (Matsaborimena; Fig. 2). It is fringed by reedbeds and swamps, and surrounded by beautiful forest. The second lake, where the pochards are sometimes seen during the non-breeding season, is 'Green Lake' (Matsaborimaitso). It is fringed by trees being located well inside the forest itself.

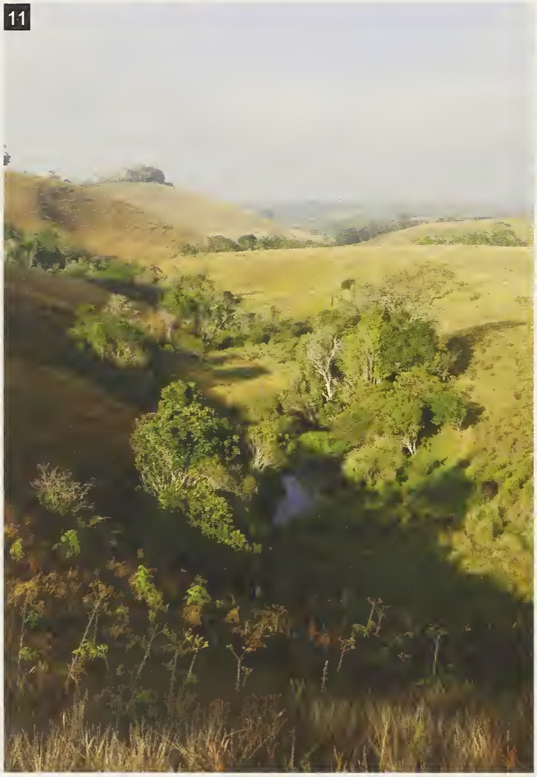
Birding at Bemanevika

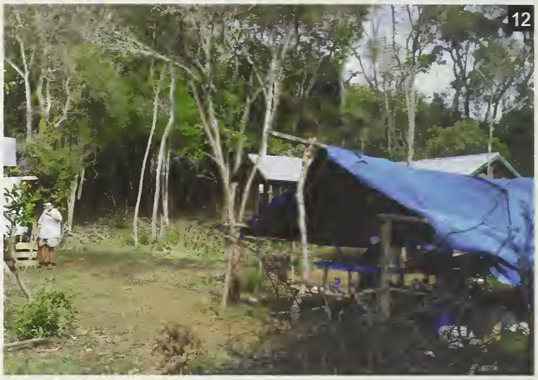
During our visit the pochards were easy to see, especially as they were confined to a single lake for breeding (Figs. 3–4). We saw several pairs each time we visited Red Lake, obtaining great views. Two other species of particular interest here are Red Owl *Tyto soumagnei* and Madagascar Serpent Eagle *Eutriorchis astur*. Two Red Owls were fitted with radio transmitters during our stay, and the project staff kindly tracked one of them for us, permitting superb views on its day perch (Fig. 5). Madagascar Serpent Eagle is much less predictable. In the past the project staff have found active nests of this secretive species, but there had been no recent sightings prior to our visit, and no active nest site was known.

Besides these three rare species, there is a plethora of other birds to be found, making a 3–4-day stay worthwhile. Most of the common eastern rainforest species occur, but the unique feature of the area is the richness of its wetlands. One of the main attractions is a breeding pair of Malagasy Harriers *Circus macrosceles* that were very active at their nest in a large swamp adjacent to Red Lake (Figs. 6–7). Red Lake and Green Lake are also excellent localities for Madagascar Grebe *Tachybaptus pelzelnii* (at least 40 birds seen) and Meller's Duck *Anas melleri* (>10 birds). A colony of Malagasy Pond Herons *Ardeola idae* (up to 18 birds observed) occurs in the reedbeds on Red Lake. Swampy areas around the margins of Red Lake should yield Madagascar Rail *Rallus madagascariensis*, and the 'harrier swamp' holds several pairs of Grey Emutail *Amphilais seebohmi*.

The forests are a good place to get to know a wide range of Malagasy birds, including Madagascar Ibis *Lophotibis cristata*, Madagascar Flufftail *Sarothrura insularis*, White-throated Rail *Dryolimnas cuvieri*, Madagascar Blue Pigeon *Alectroenas madagascariensis*, Red-fronted Coua *Coua reynaudii*, Blue Coua *C. caerulea*, Rainforest (=Madagascar) Scops Owl *Otus rutilus* (seen in camp at night; Fig. 8), Madagascar (Long-eared) Owl *Asio madagascariensis*, Madagascar Spinetail *Zoonavena grandidieri*, Pitta-like Ground Roller *Atelornis pittoides*, Cuckoo Roller *Leptosomus discolor*, Velvet Asity *Philepitta castanea*, Common Sunbird-Asity *Neodrepanis coruscans*, Dark Newtonia *Newtonia amphichroa*, Stripe-throated Jery *Neomixis striatigula*, Crossley's







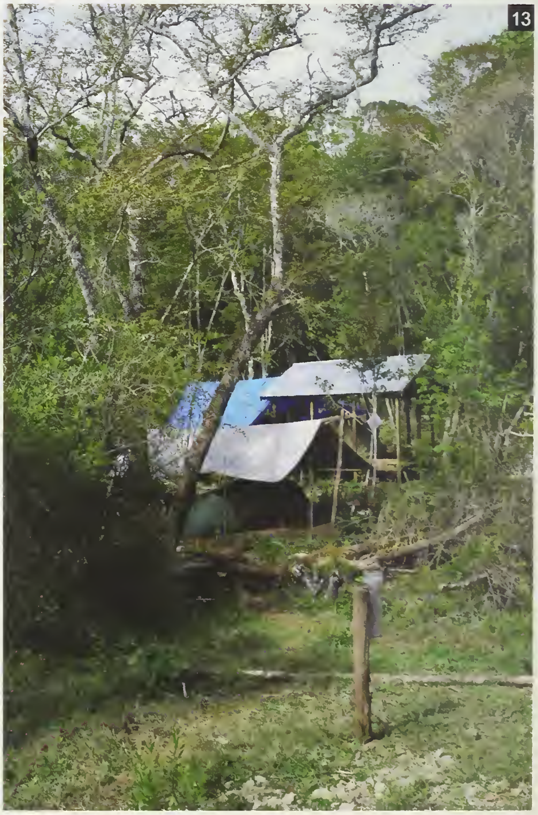


Figure 9. Nelicourvi Weaver *Ploceus nelicourvi*, Bemanevika, north-east Madagascar, 7 November 2011 (Michael Mills)

Tisserin nélicourvi *Ploceus nelicourvi*, Bemanevika, nord-est de Madagascar, 7 novembre 2011 (Michael Mills)

Figures 10–11. Grasslands in the Bemanevika area, north-east Madagascar, November 2011 (Michael Mills)

Les prairies dans la zone de Bemanevika, nord-est de Madagascar, novembre 2011 (Michael Mills)

Figures 12–13. Research camp, Bemanevika, north-east Madagascar, November 2011 (Michael Mills)

La station de recherches, Bemanevika, nord-est de Madagascar, novembre 2011 (Michael Mills)

Vanga (Babbler) *Mystacornis crossleyi*, White-headed Vanga *Artamella viridis*, Tylas Vanga *Tylas eduardi*, Madagascar Starling *Hartlaubius auratus* and Nelicourvi Weaver *Ploceus nelicourvi* (Fig. 9). Two rather localised species that we saw several times are Grey-crowned Tetraka *Xanthomixis cinereiceps* and Forest Rock Thrush *Monticola sharpei*. The surrounding grasslands (Figs. 10–11) also hold most of the island's widespread avian inhabitants of such habitats, including Madagascar Buttonquail *Turnix nigricollis*. In total we recorded 85 species during our short visit.

What to take

Although there is a research camp at Bemanevika (Figs. 12–13), visitors should be entirely self-sufficient and bring enough food and water for their entire stay. You will also need your own tent, bedding, utensils, etc. With prior permission from The Peregrine Fund it was possible for us to stay at the camp, and we were allowed to use their basic shelters (under which to pitch our tents) and the permanent long-drop toilet. The staff kindly prepared food for us (they have a permanent kitchen area and a full-time camp attendant / cook).

Acknowledgements

We thank the staff of The Peregrine Fund, particularly Lily-Arison, Sam The Seing and Loukman Kalavah, for making our visit both possible and memorable. Most information contained in this article was supplied by Sam The Seing. Eugène Rakotobe drove us safely from 'Tana' to Bemanevika and back. Birding Africa paid for Michael Mills's visit to Madagascar.

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Recent Reports

These are largely unconfirmed records published for interest only; **records are mostly from late 2012 and early 2013, with a few from earlier dates.** We thank all birders who have sent in their records and urge them to submit full details to the relevant national or regional organisations. It is suggested that observations of each species be compared with relevant literature to set new data in context and that observers who are unfamiliar with the status of birds in a particular country refer to the ABC country checklists (www.africanbirdclub.org/countries/checklists/index.html) or more recent or appropriate sources before submitting records.

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Les observations ci-après sont en majeure partie non confirmées et sont publiées uniquement dans le but d'informer. **La plupart des données sont de fin 2012 et début 2013 ; quelques-unes sont plus anciennes.** Nous remercions tous les ornithologues qui ont pris la peine de nous faire parvenir leurs données et nous recommandons de les envoyer, dûment documentées, aux organisations nationales ou régionales concernées. Il est conseillé de vérifier le statut des espèces observées dans la littérature appropriée, afin de mettre les nouvelles données en perspective, et de consulter notamment les 'checklists' des pays africains du ABC (www.africanbirdclub.org/countries/checklists/index.html) ou des sources plus récentes ou appropriées.

Angola

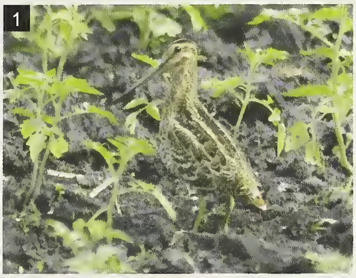
Reports from January–early June 2013 include the following. A **Grey-striped Francolin** *Pternistis griseostriatus* was observed at Kaviombo Farm, near Chongoroi, Benguela Province, on 20 January; there are few records so far south. Also there on that date was a **Chestnut Weaver** *Ploceus rubiginosus* in breeding plumage. A **Chestnut-banded Plover** *Charadrius pallidus* was observed at Barra do Kwanza, Bengo Province, on 3 June; this species was previously known only from the extreme south-west. A **Mottled Swift** *Tachymarptis aequatorialis* was seen near Caxito, Luanda, on 23 February. Near Quibaxi, Cuanza Norte, the most southerly records of **Green Turaco** *Tauraco persa*, **Bristle-nosed Barbet** *Gymnobucco peli* and **Scaly-breasted Illadopsis** *Illadopsis albipectus* were made on 24 February. At Mount Moco, Huambo, a **Tinkling Cisticola** *Cisticola rufilatus*, a rare species here, was seen on 22 January. Three species were added to the site list on 27 May: **Verreaux's Eagle** *Aquila verreauxii* (a juvenile), a **Buffy Pipit** *Anthus vaalensis* (on recently burned ground) and **Broad-tailed Paradise Whydah** *Vidua obtusa*. **Black-and-rufous Swallow** *Hirundo nigrorufa* was still present, so is probably resident here, with **Bocage's Sunbird** *Nectarinia bocagii* also there (*MM*).

Azores

In the period December 2012–March 2013, the following were reported. **Pied-billed Grebes** *Podilymbus podiceps* stayed at Lagoa Azul, São Miguel (up to two), and at Lagoa do Capitão, Pico (one), into March. Six **Double-crested Cormorants** *Phalacrocorax auritus* were seen together at Ponta das Contendas, Terceira, on 12 February, with presumably five of the same group over Cabo da Praia on 11 February; this constitutes the second-largest flock for the Azores. A new **Great Blue Heron** *Ardea herodias* remained at Lajes, Pico, from 30 January to early March, with another still on Corvo until 8 February. The seventh **Allen's Gallinule** *Porphyrio alleni* for the Azores was picked up at Praia, Graciosa, on 10 December. In February–March, up to two **Semipalmated Plovers** *Charadrius semipalmatus* were at Cabo da Praia, Terceira, with one again at Ribeira Grande, São Miguel, on 25 February. A **Killdeer** *C. vociferus* remained south of the airport on Santa Maria until at least late March. Other waders observed in February included up to four **Eurasian Dotterels** *C. morinellus* on Santa Maria (with one still present on 24 March); three **Hudsonian Whimbrels** *Numenius (phaeopus) hudsonicus* on Faial, with two again on Terceira (one still there on 16 March); a **Lesser Yellowlegs** *Tringa flavipes* on Terceira until at least 19 March; and at least six **Wilson's Snipes** *Gallinago g. delicata* on Terceira (with four still present on 18 March and three on Santa Maria on 24 March). **Spotted Sandpipers** *Actitis macularius* stayed on Terceira (one) and Pico (two) in February–March. A **Belted Kingfisher** *Megaceryle alcyon* was still at Ribeira de São Francisco, Santa Maria, in late March; it was first seen there on 3 September 2012. The second **Bohemian Waxwing** *Bombycilla garrulus* for the Azores was present at Horta, Faial, on 2–21 February (per *Dutch Birding* 35: 50 & 131–137; *Birding World* 26: 58–59 & 102)

Benin

The following records are from December 2012 to early June 2013. During an offshore fishing trip on 4 June, a single **Brown Booby** *Sula*



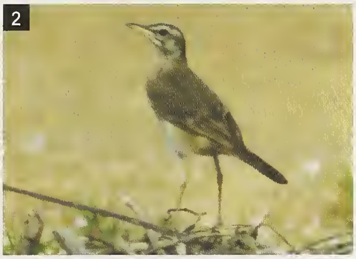
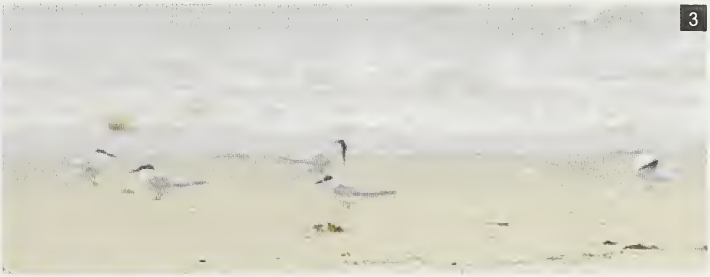


Figure 1. Great Snipe / Bécassine double *Gallinago media*, Sô-Ava, Benin, 12 January 2013 (Bruno Portier)

Figure 2. Long-legged Pipit / Pipit à longues pattes *Anthus pallidiventris*, Bouches du Roy, Benin, 27 January 2013 (Bruno Portier)



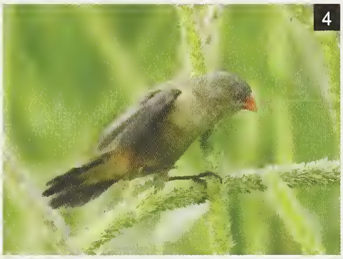


Figure 3. Damara Terns / Sternes des baleiniers *Sternula balaenarum*, Bouches du Roy, Benin, 17 May 2013 (Cadnel Toundoh)

Figure 4. Anambra Waxbill / Astrild du Niger *Estrilda poliopareia*, Sô-Ava, Benin, 12 January 2013 (Bruno Portier)

leucogaster was observed around abandoned oil platforms *c.*10 km off the coast, at 06°15'N 02°42'E (*BP*). An adult **European Hobby** *Falco subbuteo*, a species seldom recorded in the south of the country, was seen in a small forest near Zinvié (06°37'28"N 02°21'29"E) on 18 December (*BP*).

In the Plaine du Sô, Basse Vallée de l'Ouémé, several **Great Snipes** *Gallinago media* were regularly seen in the inundated fields (up to seven together on 12 January; Fig. 1), with a noteworthy flock of 360 **Common Ringed Plovers** *Charadrius hiaticula* also there on 9 December (*BP*). A **Marsh Owl** *Asio capensis* and a non-breeding male **Cuckoo Finch** *Anomalospiza imberbis*, first encountered on 1 December (see photographs *Bull. ABC* 20: 90), were seen again on 9 December (*BP*). At least two pairs of **Greater Swamp Warblers** *Acrocephalus rufescens* were also heard and photographed and two **Black-bellied Seedcrackers** *Pyrenestes ostrinus* were observed on 24 December (*BP*).

At Bouches du Roy, at the mouth of the Mono River, two **Long-legged Pipits** *Anthus pallidiventris* were photographed on 26–27 January (Fig. 2); this constitutes the second record for the country (*BP*). On 17 May, 17 **Damara Terns** *Sternula balaenarum* were seen at the same site (Fig. 3; *CT*). On 12 January, the largest known congregation of **Anambra Waxbills** *Estrilda poliopareia* was also found in the area, with a flock of at least 100 birds, mixed with Bronze *Lonchura cucullata* and Black-and-white Mannikins *L. bicolor* (*BP & CT*); the species was tape-recorded for the first time and more photographs were obtained (Fig. 4). In a small privately owned forest in Abomey-Calavi, only a few kilometres from Cotonou, two singing male **Black-shouldered Nightjars** *Caprimulgus* (*pectoralis*) *nigriscapularis* and a noisy group of four **Leafloves** *Pyrrhurus scandens* was observed on 3 January 2012, like the year before (*BP*).

Botswana

The following were reported from the period September 2012–June 2013. Large counts of **Great White Pelicans** *Pelecanus onocrotalus* included 750–800 at Lake Xau on 11 January (*ST*), with 600 there in early April (*CB*); a flock of 114 was at Letsibogo Dam on 17 January (*DWNP*). There were several records of long-staying **Ospreys** *Pandion haliaetus* along the Savuti Channel in Chobe National Park (=NP), with two in late September–early October (per *BR*), one in early November, two, possibly three, in mid December (*MMu, AF*), one on 29 January (*GB & MB*) and one in February (*RR*). A ringed Osprey was seen at Matsweri Camp on the Khwai in late November (*NS*) and one was at Kasane Seep in early January and again on 24 March (*PZ, MV*). **A European Honey Buzzard** *Pernis apivorus* was in Chobe NP on 16 March (*CC*). An immature **Egyptian Vulture** *Neophron percnopterus* was observed in the Central Kalahari Game Reserve on 20 February (per *TH*). A pair of **Bat Hawks** *Macheiramphus alcinus* was regularly seen roosting and hunting before dawn along the Thamalakane River in Maun in October (*TL, AF*); one was encountered near Xigera Camp on 6 January (*BLB*). **African Goshawk** *Accipiter tachiro* was also regularly observed along the Thamalakane River (per *ST*).

Records of **Black-winged Pratincoles** *Glareola nordmanni* included *c.*875 in Savuti on 27 November (*EE*), just one along the Chobe River between Kasane and Ngoma on 21 January (*PZ* et al.), a flock of 76 at Lake Xau on 11 January (*ST*), 250 at Bokaa Dam on

27 January (*CB*) and 400 at Nxai Pan NP on 10 March (*PZ*). **Common Ringed Plovers** *Charadrius hiaticula* were recorded at the Thamalakane River above the Boro confluence on 1 October (five; *MMu*); in Savuti in mid December (one; *MMu, AF*) and at Lake Xau on 11 January (one; *ST*). Single **White-fronted Plovers** *C. marginatus* were at Maun Sewage Ponds on 5 January, at Xigera Lagoon in the Okavango Delta on 7 January and at Lake Xau on 11 January (*ST*); four were at Kasane Seep on 8 January (*MV*), where they have been seen regularly (*PZ*), with three photographed there in mid January (*KC*). In early April, 25 were at Lake Xau, where at least 400 **Chestnut-banded Plovers** *C. pallidus* were also present (*CB*). A **Pectoral Sandpiper** *Calidris melanotos* was reported from the Shinde area of the Okavango on 20 March (per *TH*). Two **Eurasian Curlews** *Numenius arquata* were near Matsebe Island, Savuti, in mid December (*MMu, AF*), with a **Black-tailed Godwit** *Limosa limosa* on the Thamalakane River above Island Safari Lodge, Maun, on 21 September (*MMu, GR*). At Lake Xau, there were at least 21 adult **Caspian Terns** *Hydroprogne caspia* on 11 January (*ST*) and 16 in early April (*CB*); four were seen on the Chobe River between Katchikau and Kavimba on 26 January (*GB & MB*) and one on Jao Flats on 28 January (*MK & AMu*). A **Lesser Black-backed Gull** *Larus fuscus* was at Lake Xau in early April (*CB*).

A **Schalow's Turaco** *Tauraco schalowi* was observed at old Sedudu Gate, Chobe NP, on 13 October (*PZ*) and at Chobe Game Lodge on 16 October (*WS*). At Pandamatenga Farm 50, a **Denham's Bustard** *Neotis denhami* was seen on 26 February, with two there on 15 March (*DHa*). A **Green-backed Honeybird** *Prodotiscus zambesiae* was caught by a cat in Maun but released unharmed on 21 March (*EE*). A **Souza's Shrike** *Lanius souzae* was discovered at Kasane Sewage Works on 2 June; there are apparently few confirmed records for the country despite the fact that this species is currently observed fairly regularly in the Caprivi. Also in early June, a leucistic **Burchell's Starling** *Lamprotornis australis* was reported from the Kwai area (per *sa-rarebirdnews@googlegroups.com*).

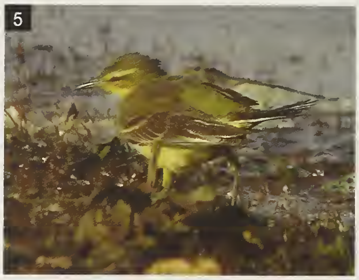


Figure 5. Yellow Wagtail / Bergeronnette flavéole *Motacilla* (*flava*) *flavissima*, Lake Higa, Burkina Faso, late February 2012 (Michiel van den Bergh)

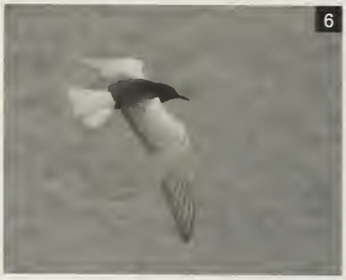
Burkina Faso

In the late afternoon of 25 January 2012, a falcon identified as an adult pale-morph **Eleonora's Falcon** *Falco eleonorae* was circling near the village of Tankougounadié, near the Burkina Faso / Niger border. No photographs could be obtained, but the dark underwing-coverts were clearly seen. A presumed **Ashy-headed Wagtail** *Motacilla* (*flava*) *cinereocapilla* in breeding plumage was video-taped on the shores of Lake Higa on 22 February 2012. In the same area, at least one **Yellow Wagtail** *Motacilla* (*flava*) *flavissima* was photographed in late February (Fig. 5; *MvdB*).

Cameroon

Records from the period January–June 2013 include the following. **Common Kestrel** *Falco tinnunculus* is now a common breeder in Yaoundé, which was not the case 10–15 years ago (*ML*). A flock of at least 15 **Red-footed Falcons** *F. vespertinus* was feasting on flying termites after heavy rain, in wooded savannah at Ngaoundaba on 1 April (*MvB*).

A weekend spent along the Sanaga River on 16–17 March, including a boat trip down to the coast, did not yield any **Water Thick-knees** *Burhinus vermiculatus* and previous claims of this species are suspected to have resulted from confusion with **Senegal Thick-knee** *B. senegalensis* (*ML*). A **White-winged Tern** *Chlidonias leucopterus* in breeding plumage stayed at the 'Lac municipal' in Yaoundé from 17 June to at least 21st (*RF*; Fig. 6); this is the first record for the capital—the species is common in the inundation zone in the far north with a few records from the coast.



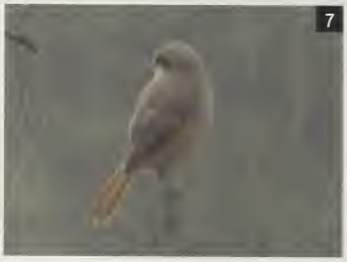


Figure 6. White-winged Tern / Guifette leucoptère *Chlidonias leucopterus*, Yaoundé, 17 June 2013 (Roger Fotso)

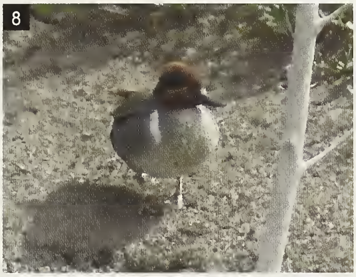
Figure 7. Isabelline Shrike / Pie-grièche isabelle *Lanius isabellinus*, Sanaga River, Cameroon, 3 January 2013 (Marc Languy)

A **Western Grey Plantain-eater** *Crinifer piscator* at Ebebda, Centre Province, on 12 January represents one of the southernmost records in Cameroon. An adult **Great Spotted Cuckoo** *Clamator glandarius* seen at Yaoundé Golf Club on 18 May is an addition to the site list. The southernmost breeding population of **Wire-tailed Swallows** *Hirundo smithii* in the country was found along the Sanaga near Marienberg. An **Isabelline Shrike** *Lanius isabellinus*, discovered along the Sanaga at Ebebda on 2 January, was still present on 19 February (Fig. 7); this is a very southerly record for a species that previously had only been definitely identified in the far north. A pair of **White-cheeked Olivebacks** *Nesocharis capistrata* observed at Ebebda on 12 February represents a significant southward range extension (*ML*).

Canary Islands

Records from December 2012–May 2013 include the following. A *Puffinus* shearwater photographed between La Gomera and Tenerife on 14 December exhibited characters of either **Macaronesian Shearwater** *P. baroli boydi* or **Audubon's Shearwater** *P. lherminieri*, which would be the first for the archipelago (*cf.* http://birdingbytrain.wordpress.com/2012/12/17/interesting-shearwater) (per *Dutch Birding* 35: 44). On Lanzarote, two **Red-billed Tropicbirds** *Phaethon aethereus* were apparently breeding in April–May (per *Dutch Birding* 35: 194; *Birding World* 26: 146). An unringed **Marabou Stork** *Leptoptilos crumenifer* was seen on Fuerteventura on 7 December and on Lanzarote on 15 December (per *Dutch Birding* 35: 49). On Gran Canaria, an immature **Black Stork** *Ciconia nigra* was noted on 5 January. On the same island, the long-staying immature **Greater Flamingo** *Phoenicopterus roseus*, first seen on 17 September 2011, was still present in February (per *Birding World* 26: 14, 59).

An adult male **Green-winged Teal** *Anas* (*crecca*) *carolinensis* was photographed on Tenerife on 14 April (Fig. 8; *RB, VC, MF & RL*). An adult male **Blue-winged Teal** *A. discors* in full breeding plumage stayed at Los Molinos Reservoir, Tenerife, from February until at least 1 April (Fig. 9;); at the end of 2012 the bird was still in eclipse plumage (*RB & RL*). A female / first-winter was still at Los Abrigos golf course, on the same island, on 13 January (from October 2012) (per *Birding World* 26: 14). Single female **Ring-necked Ducks** *Aythya collaris* were at Tejina Ponds, Tenerife, from December until at least 1 February (Fig. 10; *RB & RL*; *DH*), Los Silos, Tenerife, in December–March (*RB & RL*; per *Birding World* 26: 102), and at Los Molinos Reservoir, Fuerteventura, in January–March (*DH*; per *Birding World* 26: 14, 102).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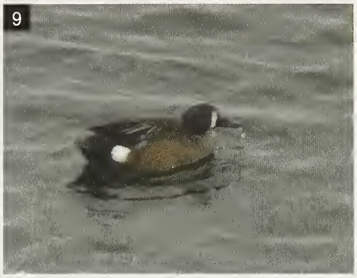
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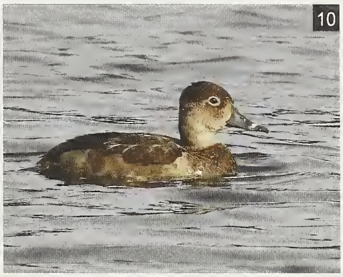
Figure 8. Adult male Green-winged Teal / Sarcelle à ailes vertes *Anas* (*crecca*) *carolinensis*, Armeñime, Tenerife, 14 April 2013 (Rolf Larsson)

Figure 9. Adult male Blue-winged Teal / Sarcelle à ailes bleues *Anas discors*, Los Molinos Reservoir, Tenerife, 28 February 2013 (Rolf Larsson)

On Gran Canaria, a male **Red-footed Falcon** *Falco vespertinus* was observed on 18 May and a **Spotted Sandpiper** *Actitis macularius* on 24 May (per *Birding World* 26: 190). A **Baillon's Crake** *Porzana pusilla* was at Tejina Ponds, Tenerife, on 9–10 May (*RB & VC*). A **Ring-billed Gull** *Larus delawarensis* was photographed near Arrecife, Lanzarote, on 24 February (Fig. 11; *GO*). Three of the four **Olive-backed Pipits** *Anthus hodgsoni* observed on Fuerteventura from mid-November 2012 were still present on 4 March (Fig. 12; per *Dutch Birding* 35: 137; *Birding World* 26: 102). A male **Citrine Wagtail** *Motacilla citreola* was seen on Lanzarote on 1 April (per *Birding World* 26: 146). One of the two **Yellow-browed Warblers** *Phylloscopus inornatus* found at Costa Calma, Fuerteventura, in late December, was still present on 8 March, with another at Betancuria on 2 February and two more on Lanzarote on 27 March–1 April (*DH*; per *Dutch Birding* 35: 54; *Birding World* 26: 59, 102, 146). An **Iberian Chiffchaff** *P. ibericus* was seen in a garden at Puerto del Carmen, Lanzarote, on 8–9 February (*GO*).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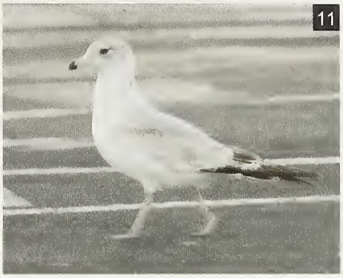
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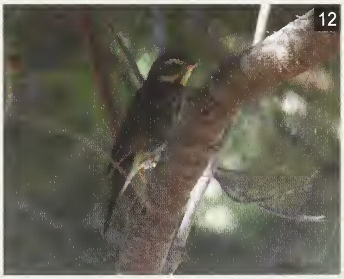
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Figure 10. Female Ring-necked Duck / Fuligule à bec cerclé *Aythya collaris*, Tejina Ponds, Tenerife, 15 December 2012 (Rolf Larsson)

Figure 11. Ring-billed Gull / Goéland à bec cerclé *Larus delawarensis*, Arrecife, Lanzarote, 24 February 2013 (Georges Olioso).

Figure 12. Olive-backed Pipit / Pipit à dos olive *Anthus hodgsoni*, Costa Calma, Fuerteventura, 30 January 2013 (David Hoddinott).

Cape Verde Islands

The following reports are from the period November 2012–April 2013. **Cape Verde Storm-petrels** *Oceanodroma castro jabejabe* were sound-recorded at Fontainhas, Santo Antão, on 27–30 November and (one) at Boca de Ambas as Ribeiras, *c.*3 km inland, on 2 December; breeding is not known from Santo Antão although the species has been reported in the past. A **Masked Booby** *Sula dactylatra* was seen on Curral Velho off Boavista on 13 December, and an adult **Red-footed Booby** *S. sula* on Razo on 14 March. At Barragem de Poilão, Santiago, the following were present: a male **Little Bittern** *Ixobrychus minutus* on 4–20 March (fourth record), a **Black Heron** *Egretta ardesiaca* and an **Intermediate Egret** *E. intermedia* until at least 22 April, three dark-morph **Western Reef Egrets** *E. gularis* and a **Great Egret** *Ardea alba*, from 4 March until at least 22 March, two adult and ten immature **Cape Verde Purple** (Bourne's) **Herons** *A. purpurea bournei* on 4 March, a **Ring-necked Duck** *Aythya collaris* on 4–5 March and four **Blue-winged Teals** *Anas discors* on 4–22 March. A **Western Reef Egret** was also at Ribeira Grande, Santo Antão, from 28 November until 1 December. A male **Northern Pintail** *Anas acuta* was photographed on Santo Antão on 28 November.

Two adult and two immature **Egyptian Vultures** *Neophron percnopterus* near Tarrafal, Santo Antão, in late November may be the last individuals for the Cape Verdes. Five to seven **Cape Verde Buzzards** *Buteo* (*rufinus*) *bannermani*, including a leucistic male, were observed in the northern mountains of Santo Antão. The fourth **Spotted Crake** *Porzana porzana* for the archipelago was at Barragem de Polão on 4–5 March. Two **Semipalmated Plovers** *Charadrius semipalmatus* were discovered at Mindelo, São Vicente, on 3 December. Single **American Golden Plovers** *Pluvialis dominica* were reported from Ponta do Sol, Santo Antão, on 28–30 November and Lacacão, Boavista, on 7–8 March. Also present at the latter site were two **Lesser Yellowlegs** *Tringa flavipes*, with three there on 23rd–25th, and singles at Santa Maria, Sal, on 13 March and at Pedra Badejo, Santiago, on 20th–22nd. A **Spotted Sandpiper** *Actitis macularius* was at Pedra Badejo on 21–22 March. A **Caspian Tern** *Hydroprogne caspia* was at Rabil lagoon, Boavista, on 3 March. Six **Eurasian Collared Doves** *Streptopelia decaocto* (one singing) were at Fazenda Achada, Santiago, on 5 March; the species was first recorded on Sal, in 2006, and subsequently on São Nicolau, in 2008; since then it has become locally common on Santiago. A **Yellow-browed Warbler** *Phylloscopus inornatus* discovered on Santiago on 11 March may be the first for the Cape Verdes (per *Dutch Birding* 35: 44–51, 131–137 & 194; *Birding World* 26: 101–102).

Congo-Brazzaville

Noteworthy records from the Odzala area in the north include the report in early 2013 of a nest of **Grey-necked Picathartes** *Picathartes oreas* on an overhanging rock near a small waterfall in Lossi Fauna Reserve. The species was first reported for Congo-Brazzaville on 22 December 1994, in Mayombe Forest, in the south-west (*Bull. ABC* 13: 84–85). A **Vinaceous Dove** *Streptopelia vinacea*, present for a few weeks in savannah near Mboko in 2012, is an addition to the Odzala list (*FG*).

Côte d'Ivoire

The following records are from December 2012–early June 2013. The most remarkable reports include the first **Eurasian Wigeons** *Anas penelope* for Côte d'Ivoire (two at Assouinde marsh on 27 January and 3 February; Fig. 13), the most southerly West African record of **Red-billed Hornbill** *Tockus erythrorhynchus* (one in mangroves between Assinie Mafia and the Ehotilé Islands on 4 May), the first coastal record of **Rufous-crowned Roller** *Coracias naevius* (one between Assouinde and Assinie on 20 April; Fig. 14), and the second record of **House Sparrow** *Passer domesticus* for the country (3–4 birds at Abidjan airport from 30 May; Figs. 15–16).

In the Assouinde area, on the coast, especially at Campeix Lake, the following were observed in January–April: up to four **African Darters** *Anhinga rufa* (regularly seen; has become quite scarce in the country), a **White-crested Tiger Heron** *Tigriornis leucolopha*, up to three **White-backed Night Herons** *Gorsachius leuconotus* (Fig. 17), 1–3 **Spur-winged Geese** *Plectropterus gambensis*, a flock of six **Hartlaub's Ducks** *Pteronetta hartlaubii* (Fig. 18), two male and two female **Northern Pintails** *Anas acuta* on 27 January and 3 February (Fig. 13), a **European Honey Buzzard** *Pernis apivorus* on 2 February, with another also there on 17 February, and up to 20 **Collared Pratincoles** *Glareola pratincola* on 27 January–17 February.

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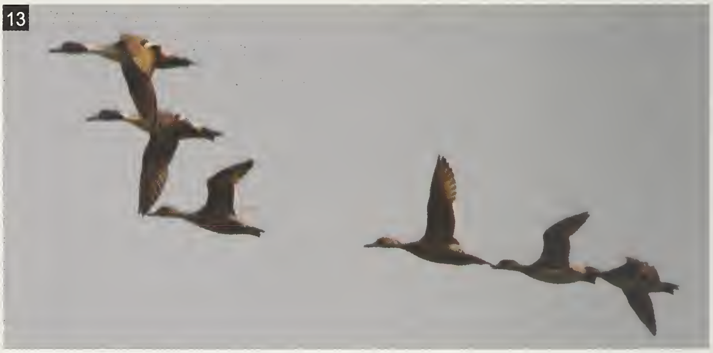
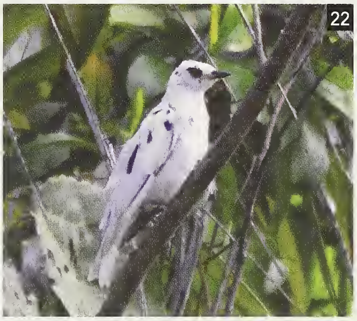
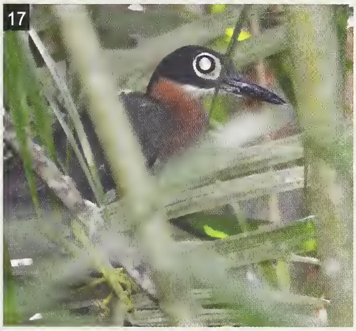


Figure 13. Two female Eurasian Wigeons *Anas penelope* (right) with two male and two female Northern Pintails *A. acuta*, Assouinde, Côte d'Ivoire, 27 January 2013 (Lionel Sineux)

Deux Canards siffleurs *Anas penelope* (à droite) avec deux mâles et deux femelles Canards pilet *A. acuta*, Assouinde, Côte d'Ivoire, 27 January 2013 (Lionel Sineux)





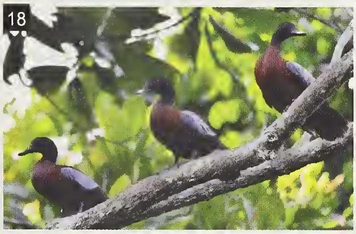


Figure 14. Rufous-crowned Roller / Rollier varié *Coracias naevius*, Assouinde, Côte d'Ivoire, 20 April 2013 (Lionel Sineux)

Figures 15–16. Male and female House Sparrows / Moineaux domestiques *Passer domesticus*, Abidjan airport, Côte d'Ivoire, 3 June 2013 (Lionel Sineux)

Figure 17. White-backed Night Heron / Bihoreau à dos blanc *Gorsachius leuconotus*, Assouinde, Côte d'Ivoire, 20 April 2013 (Lionel Sineux)

Figure 18. Hartlaub's Ducks / Canards de Hartlaub *Pteronetta hartlaubii*, Assouinde, Côte d'Ivoire, 20 April 2013 (Lionel Sineux)

Figure 19. Eurasian Oystercatchers / Huîtriers pie *Haematopus ostralegus*, Vieux Lahou, Côte d'Ivoire, 17 March 2013 (Lionel Sineux)

Figure 20. Spur-winged Lapwings / Vanneaux éperonnés *Vanellus spinosus*, Vieux Lahou, Côte d'Ivoire, 17 March 2013 (Lionel Sineux)

Figure 21. African Skimmer / Bec-en-ciseaux d'Afrique *Rynchops flavirostris* with Royal Terns *Thallaseus maximus*, Vieux Lahou, Côte d'Ivoire, 2 June 2013 (Lionel Sineux)

Figure 22. Leucistic Violet-backed Starling / Spéo améthyste *Cinnyricinclus leucogaster*, Assouinde, Côte d'Ivoire, 3 March 2013 (Lionel Sineux)

An **African Dwarf Bittern** *Ixobrychus sturmii* was photographed at Braffedon, near Vieux Lahou, on the coast, on 23 February and 16 March. Up to six **Eurasian Oystercatchers** *Haematopus ostralegus* were at the river mouth at Vieux Lahou between 24 February–14 April (Fig. 19). **Spur-winged Lapwing** *Vanellus spinosus*, a rare species on the coast, was regularly observed in small numbers at Assinie and Assouinde marsh between December and March; it was also seen at Vieux Lahou and one was at Grand Bassam on 26 May (Fig. 20). A **Ruddy Turnstone** *Arenaria interpres* was photographed at Vieux Lahou on 13 April. An **African Skimmer** *Rynchops flavirostris* was on a sandbank near Vieux Lahou with a flock of Royal *Thallaseus maximus* and Sandwich Terns *T. sandvicensis* on 2 June (Fig. 21). An unusually southern **African Thrush** *Turdus pelios* was found at Braffedon on 23 February. A leucistic **Violet-backed Starling** *Cinnyricinclus leucogaster* was at Assouinde on 3 March (Fig. 22), with three normal-plumaged males and a female (*LS*).

DR Congo

Two **Eleonora's Falcons** *Falco eleonorae* were observed at Twangiza, South Kivu, on 7–8 March 2013; this appears to be the first sight record for the country, following recent records of satellite-tracked

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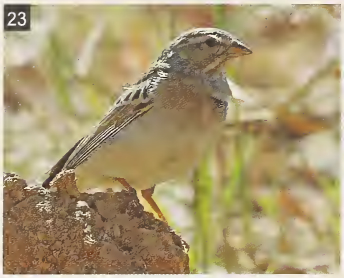

Figure 23. Lark-like Bunting / Bruant des rochers *Emberiza impetuani*, Sakania, Katanga, DR Congo, 19 May 2013 (Nigel Voaden)

individuals. A **Wood Warbler** *Phylloscopus sibilatrix*, quite scarce this far south, was also there (*JS*).

A **Lark-like Bunting** *Emberiza impetuani* was photographed at Sakania, Katanga, on 19 May (Fig. 23); this apparently constitutes only the second record of this irruptive vagrant from arid south-west Africa, the first dating from 1922, when five specimens were collected at Kananga, West Kasai, on 23–30 September (*cf.* Chapin 1954. The birds of the Belgian Congo. Part 4). At the same locality, male **Zambezi** (=Green) **Indigobirds** *Vidua codringtoni* were seen and heard (among others their imitation of Peter's Twinspot *Hypargos niveoguttatus*) on 7 and 14 April, probably two different individuals; this is an addition to the country list: it does not figure on the ABC checklist of DRC, but is known from neighbouring Zambia (*NV*).

Egypt

A **Senegal Thick-knee** *Burhinus senegalensis* was seen at a golf course along the Red Sea coast of El Gouna on 23 March 2013; this is the second record for this locality—the species is rarely observed away from its breeding sites along the Nile. In Minya governorate, 61 **Chestnut-bellied Sandgrouse** *Pterocles exustus* were counted on 3 February, with a maximum of 80 near Sandafa on 6–7 April. An **African Mourning Dove** *Streptopelia decipiens* was seen again at Abu Simbel in January. The first **Olive-backed Pipit** *Anthus hodgsoni* for Egypt was photographed at Dahab, Sinai, between 18 and 23 February (per *Dutch Birding* 35: 51, 137 & 200).

Ethiopia

Working in western Ethiopia since 2010 has provided many birding opportunities for Bassel abi Jummaa, and recently submitted records include significant range extensions for no fewer than 14 species. Most of the sightings were in the Gambela region and all were documented with photographs, including the following: a **Black Heron** *Egretta ardesiaca* in Gambela National Park (=NP) on 30 October 2011, a **Booted Eagle** *Hieraaetus pennatus c.*60 km east of Gambela on 16 October 2011, a **Three-banded Plover** *Charadrius tricollaris* near Bonga, *c.*40 km east of Gambela on 5 March 2011, two **Ruddy Turnstones** *Arenaria interpres* in non-breeding plumage in rice fields at Gambela NP on 30 October 2011, several **Olive Bee-eaters** *Merops superciliosus c.*40 km north of Gambela on 9 August 2011, **Heuglin's Wheatears** *Oenanthe heuglini* in Gambela NP on 10 April 2011 and 15 January 2012 (the former was a recently fledged juvenile, indicating that it may have been raised nearby; there are no breeding records for Ethiopia), a male **Blue Rock Thrush** *Monticola solitarius* on rocky slopes near Bure, *c.*80 km east of Gambela on 10 January 2011, a **Semi-collared Flycatcher** *Ficedula semitorquata* near Bure on 28 September 2011, a male **Pygmy Sunbird** *Hedydipna platura* in breeding plumage in Gambela NP on 13 February 2011, a party of **Chestnut Sparrows** *Passer eminibey* (three males and one female) *c.*70 km north of Gambela on 3 July 2011, *c.*15 **Grey-capped Social Weavers** *Pseudonigrita arnaudi* breeding *c.*60 km north of Gambela (nests on 3 July 2011 and juveniles on 11 September 2011), a party of **Black-headed Weavers** *Ploceus melanocephalus* in non-breeding plumage in Gambela NP on 26 December 2010, and a **Cut-throat Finch** *Amadina fasciata* near Bonga, *c.*40 km east of Gambela, on 19 April 2011. Most significantly, **Beaudouin's Snake Eagle** *Circaetus beaudouini* was seen frequently in Gambela NP and also once *c.*15 km from Gambela; despite several recent claims of this species, none was considered acceptable and it was listed as hypothetical for the country. Photographs of several individuals now confirm the species for Ethiopia (Fig. 24), and it probably is resident in the Gambela area. Finally, a single **White-backed Night Heron** *Gorsachius leuconotus* was photographed in Awash NP on 28 May 2012 (Fig. 25); this is a considerable range extension for this species which was hitherto only known from a few records in far western Ethiopia, and all the more remarkable given that Awash is one of the most well-watched sites in the country (*BaJ* per *NR*).

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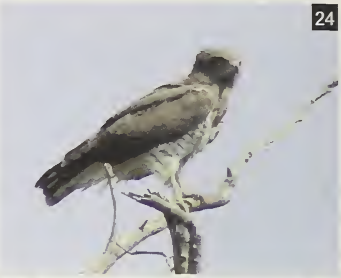

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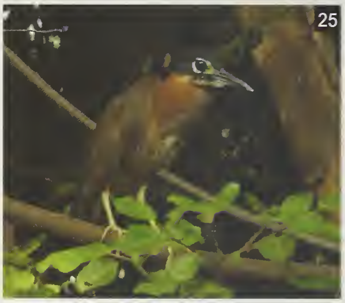

Figure 24. Beaudouin's Snake Eagle / Circaète de Beaudouin *Circaetus beaudouini*, Gambela National Park, Ethiopia, 5 December 2010

Figure 25. White-backed Night Heron / Bihoreau à dos blanc *Gorsachius leuconotus*, Awash National Park, Ethiopia, 28 May 2012 (Bassel abi Jummaa)

The bunting photographed along the road from Lomi Ketema into the Jemma Valley on 15 November 2012 (see *Bull. ABC* 20: 97–98, Fig. 18) and initially thought to

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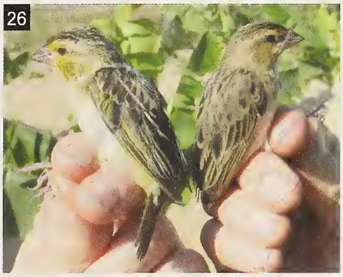

Figure 26. Cuckoo Finches / Anomalospizes parasites *Anomalospiza imberbis*, Kartong, Western Division, The Gambia, 21 February 2013 (Matt Prior)

be a **Cinereous Bunting** *Emberiza cineracea*, has been re-identified as **Ortolan Bunting** *E. hortulana*; apparently it is not unusual to have first-winter Ortolans with essentially white underparts (*SR*).

The Gambia

Three **Cuckoo Finches** *Anomalospiza imberbis* were trapped at the edge of a reedbed bordered by marsh and mixed grasses in a large wetland complex near Kartong, Western Division, on 21 February 2013 (Fig. 26); there is only one previous record for Senegambia, from Banjul, in September 1969 (*MP*, *CCr*). The fourth **American Golden Plover** *Pluvialis dominica* for the country was observed at Kartong on, e.g., 17 February (per *Dutch Birding* 35: 135). Previous records, all from the Western Division, include: Fajara, 15 January 1984 (Gore 1990. *The Birds of The Gambia: An Annotated Check-list*), Kotu sewage works, 7 November 1997 (*Bull. ABC* 5: 72) and Cape Creek, near Banjul, 4 December 2005 (*Bull. ABC* 13: 102).

Ghana

A **Wahlberg's Honeybird** *Prodotiscus regulus* was trapped and photographed in Damongo Scarp Forest on 28 January 2013 (*MHa*). A **Greyish Eagle Owl** *Bubo* (*africanus*) *cinerascens* bred successfully near a study site at Pepease, Kwahu East district, Eastern Region, with two young ringed on 11 March; the nest, containing three eggs, was discovered on 27 January. Also near Pepease, a female woodpecker exhibiting the features of **Green-backed Woodpecker** *Campethera cailliautii* was seen well near secondary forest at 06°39'37"N 00°42'33"W on 11 January; this is an unusually western record. A **Rufous-rumped Lark** *Pinacorys erythropygia* seen on burnt grassland at Pepease (06°41'28"N 00°42'33"W) on 10 January constitutes a southward extension of its previously known range. In the same area, a **Common Chiffchaff** *Phylloscopus collybita* was observed on 27 January (*RS*). Several **Magpie Mannikins** *Lonchura fringilloides* were seen feeding on seeds of the exotic Chinese Bamboo *Bambusa vulgaris* at Bobiri on 16 December 2012 (*DH*); this appears to be the first report of this behaviour—Chinese Bamboo flowers very rarely and it is interesting to know that the species can be utilised by at least one bird species.

Guinea-Bissau

During field work conducted in the Boé area, in the south-east, in January–February 2013, some 170 bird species were identified, including three that appear to be new for the country: **Chestnut-backed Sparrow Lark** *Eremopterix leucotis*, **Lesser Striped Swallow** *Cecropis abyssinica* and **Heuglin's Wheatear** *Oenanthe heuglini*. Two more, **Flappet Lark** *Mirafra rufocinnamomea* and **Dybowski's Twinspot** *Euschistospiza dybowskii*, are not mentioned in the ABC checklist of Guinea-Bissau (Dowsett *et al.* 2013) either, although they are listed for Vendu Tcham, an Important Bird Area to the east of Boé, in Dodman *et al.* (2004. *Important Bird Areas in Guinea-Bissau*). Other noteworthy species observed include **Red-thighed Sparrowhawk** *Accipiter erythropus*, **Black-throated Coucal** *Centropus leucogaster*, **Shining-blue Kingfisher** *Alcedo quadribrachys*, **Chestnut-breasted Negrofinch** *Nigrita bicolor* and **Red-winged Pytilia** *Pytilia phoenicoptera* (*JG*).

Kenya

The following reports are from November 2012–early June 2013. Two **Red-winged Francolins** *Scleroptila levaillantii* were observed in the Masai Mara on 25 December; this species has significantly declined due to habitat loss and is now rarely recorded. Two **Wedge-tailed Shearwaters** *Ardenna* (*Puffinus*) *pacifica* were reported 30 km off Watamu on 31 December; there are only a few records off the Kenyan coast. An estimated 5,000 **Little Grebes** *Tachybaptus ruficollis* were on Lake Nakuru on 13 January, but no Black-necked Grebes *Podiceps nigricollis*, which are normally common at this site. In the Pemba Channel, a **White-tailed Tropicbird** *Phaethon lepturus* was seen on 22 January; this rarely reported species is apparently regularly observed by fishermen. Two adult **Masked Boobies** *Sula dactylatra* were also there, on 20 January. A **Red-footed Booby** *S. sula*, a wanderer to Kenyan waters, was seen 30 km off Watamu on 31 December. An estimated 25,000 **Great Cormorants** *Phalacrocorax carbo* were present on Lake Nakuru on 10 December, but only *c.*1,000 remained on 13 January, despite high water levels. In the Tana River Delta, 1,542 **African Openbill Storks** *Anastomus lamelligerus* were counted on 9 February. More than 400 **Hottentot Teals** *Anas hottentota* were on Lake Nakuru on 13 January—a remarkable count for a species not known to occur in large concentrations. A male **Ferruginous Duck** *Aythya nyroca* found on Manguo pond, Limuru, in November, was still present on 27 January. A male and a female **Tufted Duck** *A. fuligula* stayed at Dandora Sewage Ponds, Nairobi, on 24 January; the species was last recorded in Kenya ten years ago.

Two **African Swallow-tailed Kites** *Chelictinia riocourii* were in Meru National Park (=NP) on 26 February; this raptor is not often reported in Kenya. Five **Egyptian Vultures** *Neophron percnopterus* at a waterhole in Tsavo East NP on 20 February are noteworthy as the species has become very rare over the past 15 years; a pair was also reported from Lake Kwenia on 26 May. An immature **Shikra** *Accipiter*

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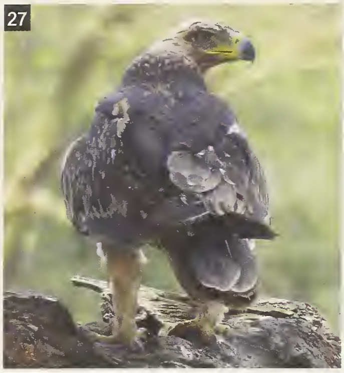

Figure 27. Eastern Imperial Eagle / Aigle impérial *Aquila heliaca*, Lake Nakuru, Kenya, 10 March 2013 (Brian Finch)

badius in Nbi NP on 22 April is only the second record for this well-watched site. A sub-adult **Eastern Imperial Eagle** *Aquila heliaca* was photographed at Lake Nakuru on 10 March (Fig. 27); this is a rare migrant in Kenya. A **Crowned Eagle** *Stephanoaetus coronatus*, an unusual species for the capital, was mobbed by a **Long-legged Buzzard** *Buteo rufinus* over Westlands, a Nairobi suburb, on 2 February; another **Long-legged Buzzard** was noted in Nbi NP on 22 April and, possibly the same bird, on 5 May. An immature **Cassin's Hawk Eagle** *Aquila africana* was photographed in Imenti Forest, Meru, on 28 February; the species might breed in this forest, far from its known range; one was collected on Mount Elgon in 1926 and an adult was seen in Imenti Forest in 2006. An adult female **Amur Falcon** *Falco amurensis* on Solio Plains in late January is unusual for a species that is mainly a passage migrant in November / December and March / April.

A flock of 252 **Pacific Golden Plovers** *Pluvialis fulva* roosting in the Tana River Delta on 9 February is the largest single group recorded in Kenya; *c*.40 were also there on 20 March. Near-annual records from the past seven years indicate that small numbers spend the non-breeding season in the delta. A **Common Redshank** *Tringa totanus* in Lake Nakuru NP on 2 June is a very unusual date for this rare migrant. At the same lake, a **Ruddy Turnstone** *Arenaria interpres*, an uncommon species inland, was seen on 10 December. A **Terek Sandpiper** *Xenus cinereus* was at Lake Magadi on 17 February; this predominantly coastal species is rare inland. Five **Red Phalaropes** *Phalaropus fulicarius* were identified 30 km off Watamu on 31 December; there are only five previous records, the last from 1979. Fishermen reported 'many' phalaropes, probably **Red-necked** *P. lobatus*, in the Pemba Channel on 11–18 November, with 'many flocks' also off Watamu; none were seen on 20–24 December, but 'many' again on 22 January. On 13 January, an adult **Black-headed Gull** *Chroicocephalus ridibundus* in full breeding plumage, very unusual for Kenya at this season, was at Lake Nakuru with two first-year birds and a first-year **Slender-billed Gull** *C. genei*. A max. of 126 **Little Terns** *Sternula albifrons* was photographed at Impressa Beach, on Lake Turkana, on 12 February, with several smaller flocks in the same area in late January / early February; a single was seen 6 km north of Katiko village on 18 February—there are only four accepted records for Kenya, with none inland, but there have been recent inland records from Tanzania. More than 1,000 **Whiskered Terns** *Chlidonias hybrida* were counted on Lake Nakuru on 10 December, with only three remaining on 13 January; this is yet another little-understood movement by a common species. On Lake Turkana, 1,059 **African Skimmers** *Rynchops flavirostris* were counted at the Nakiria River delta on 17 February—a very significant number.

A **Great Spotted Cuckoo** *Clamator glandarius* was in Nbi NP on 31 December. A **Hoopoe** *Upupa epops* of the nominate subspecies was observed north of Athi River on 15 December; one of the subspecies *waibeli* was in Nairobi NP, at the southernmost limit of its range, on 10 June. A pair of **Southern Ground Hornbills** *Bucorvus leadbeateri* has occurred regularly in Kijabe since the last week of December—the species has not been recorded from this site previously; could this be an indication of a changing habitat and a drier climate resulting in the species moving to higher altitudes?

Three **Friedmann's Larks** *Mirafra pulpa* were singing at Taita Ranch, Maungu, on 1 January; the species' movements and behaviour are still not adequately understood. A **Red-rumped Swallow** *Cecropis daurica* of the European subspecies *rufula* was with other hirundines in the Ngong Hills on 20 April; this is only the second record of this race for East Africa. A male **Green-headed Sunbird** *Cyanomitra verticalis* seen in Nairobi NP on 19 December was the first record for the park. A **Cape Rook** *Corvus capensis* at the boundary of the same park on 5 May is the first record for this site of a species that is normally found at higher elevations. Four **Piapiacs** *Ptilostomus afer* were on a rubbish dump at Mumias at 22 December, with five, including an adult feeding a juvenile, also there in late January; this is possibly the first breeding record for Kenya. At Naivasha, a **Hildebrandt's Starling** *Lamprotornis hildebrandti*, an uncommon species there, was seen on 7 April. Several **Somali Sparrows** *Passer castanopterus* of the nominate race have appeared at the Sala Gate of Tsavo East NP and have apparently been reported from Garsen; this is a large range extension from the nearest previously known population north of Mogadishu, in coastal Somalia. **Clarke's Weavers** *Ploceus golandi* were apparently roosting in a small swamp in Dakatcha Woodlands on 6 January and were found breeding in another seasonal swamp on 24 March; this is the first time the weaver has been found breeding, after more than 12 years of searching (see p. 143). Two **Orange-winged Pytilias** *Pytilia afra* were seen in KARI plantations near Thika on 19 January; this is a very rare species in the country, whose central Kenya population, previously thought to be extirpated, appears to be still extant (per *CJ*).

Madeira

The following noteworthy records were reported from late December

2012–May 2013. A **Little Bittern** *Ixobrychus minutus* and a **Squacco Heron** *Ardeola ralloides* were seen at Lugar de Baixo on 24 April. The third **Blue-winged Teal** *Anas discors* for the island was found at Tanque on 24 February, whilst a record group of five **Ring-necked Ducks** *Aythya collaris* were at Serrado Reservoir, Porto Santo. A **Black Kite** *Milvus migrans* was at Poiso on 13 April, with another at Ponta São Lourenço on 21st. On 26 April, a pair of **Peregrine Falcons** *Falco peregrinus* was observed at Caniçal. The third **Solitary Sandpiper** *Tringa solitaria* for Madeira was discovered at Ribeira da Janela on 29 December. Two **Red-rumped Swallows** *Cecropis daurica* were at Ponta São Lourenço on 21–23 April, with a **Tawny Pipit** *Anthus campestris* at Ponta do Pargo on 19 April. A **Yellow-browed Warbler** *Phylloscopus inornatus* was at Caniçal on 3 January (per *Birding World* 26: 14, 59, 102 &146). During a boat trip to Ilhas Desertas on 3 May, an adult **Sabine's Gull** *Xema sabini* was seen at sea, whilst a **Rufous Scrub Robin** *Cercotrichas galactotes* was near the wardens' hut on the Desertas (*ASh*).

Mali

A group of three **House Sparrows** *Passer domesticus*, one male and two females, was observed on a small building in Nampala, near the south-eastern corner of Mauritania, on 15 June 2013 (*EL*). The security situation in the country does not permit field outings at present, but a nightjar heard singing in the Sokolo area in June and December 2005 is now known to have been a **Golden Nightjar** *Caprimulgus eximius*, rather than Red-necked Nightjar *C. ruficollis*, as initially thought (*MC*).

Morocco

The following records are from December 2012–April 2013. Breeding **Northern Bald Ibis** *Geronticus eremita* in 2012 had mixed success at the species' last two colonies. At Oued Massa, south of Agadir, 34 pairs bred (two fewer than in 2011) and 95 chicks hatched, of which 56 fledged (in 2011, 79 fledged), whereas at Tamri, north of Agadir, the breeding was a complete failure with 43 pairs present (in 2011, there were 51) of which only 11 laid eggs and none completed incubation. An adult was observed at Boujdour, Western Sahara, 680 km south of the Agadir colony, on 27 December.

At Sidi Bou Rhaba, the number of **White-headed Ducks** *Oxyura leucocephala* rose to 90 individuals in February; the species first bred at this site some five years ago. An immature **Golden Eagle** *Aquila chrysaetos* flew south over Boulariah barrage, *c.*100 km from the Mauritanian border, south-west of Aousserd, Western Sahara. In February *c.*50 **Houbara Bustards** *Chlamydotis undulata* were reportedly killed in four days by a Saudi falconry group in the Erfoud area. The fourth **Bonaparte's Gull** *Chroicocephalus philadelphia* for Morocco was an adult seen north of Sidi Brahim, Oualidia, on 26 January; a second calendar-year individual was photographed 43 km north of Oualidia on 27 April. An adult **Kelp Gull** *Larus dominicanus vetula* and nine **Great Black-backed Gulls** *L. marinus* were at Khnifiss lagoon, in the south-west, on 24 December.

In Western Sahara, 100s of **Black-crowned Sparrow Larks** *Eremopterix nigriceps* and **Dunn's Larks** *Eremalauda dunni* were still singing along the Aousserd road in early February after the rains in November 2012; on *c.*11 January four nests of Dunn's Lark were found. **Pale Crag Martins** *Ptyonoprogne obsoleta* were photographed at Begaa near Merzouga, Tafilalt, on 15 March. An **Isabelline Wheatear** *Oenanthe isabellina* was observed at Erfoud on 25 February. Three family groups of **Cricket Warbler** *Spiloptila clamans* were encountered west of Awserd, Western Sahara, in late December–early January, whilst on 28 March a **Streaked Scrub Warbler** *Scotocerca inquieta* was found 10 km south of Boujdour (which is further south than mentioned in a recent paper on this species in Morocco: see Africa Round-up). A **Pallas's Leaf Warbler** *Phylloscopus proregulus* trapped at Yasmina hotel, Merzouga, Tafilalt, on 20 April was the second for the country; at the same site, the second **Moltoni's Subalpine Warbler** *Sylvia cantillans moltonii* was trapped on 18 March. A first-winter **Red-breasted Flycatcher** *Ficedula parva* was seen 115 km north-west of Awserd on 30 December. On 29 January, an unseasonal **Balearic Woodchat Shrike** *Lanius senator badius* was singing at Oued Massa. Two **Sudan Golden Sparrows** *Passer luteus* were observed at Awserd, Western Sahara, on 12 January (per *Dutch Birding* 35: 49–55, 129–137 & 194–207; *Birding World* 26: 14).

Mozambique

Records from February–June 2013 include the following. No fewer than seven **White-faced Storm-petrels** *Pelagodroma marina* were seen from a ship passing through Mozambique waters on 7 May; there are only seven previous claims of this species in southern African waters. At least two **Tropical Shearwaters** *Puffinus bailloni* and two distant **frigatebirds** *Fregata* sp. were also observed. A **Red-tailed Tropicbird** *Phaethon rubricauda* flew over Casa Barry in Tofo on 7 April. A **Striped Crake** *Amaurornis marginalis* was seen in the Nkomati floodplain in late February. Up to five **European Honey Buzzards** *Pernis apivorus* were reported from the Unguana area in March. At Inhambane, a group of 20 **Crab-plovers** *Dromas ardeola*, 18 adults and two immatures, were present on 22 March. A **Eurasian Oystercatcher** *Haematopus ostralegus* was observed in Maputo Bay on 9 June—a most unusual date for this species. A **noddy** *Anous* sp. was reported from a pelagic trip out of Maputo on 25 April; features visible in the photographs suggest it was a Lesser *A. tenuirostris* rather than a Brown Noddy *A. stolidus*, although the latter cannot be ruled out.

In March, the recently discovered population of **Eastern Green Tinkerbirds** *Pogoniulus simplex* near Unguana attracted many South African birders; the species was regarded as probably regionally extinct. A **Basra Reed Warbler**

Acrocephalus griseldis was observed near the bridge over the Zangue River from 22 February until at least the end of the month. In Maputo, a **Variable Sunbird** *Cinnyris venustus* was located in the grounds of Café Acacia on 18 April—an unusually southerly location for the species. Also there in April were an **African Firefinch** *Lagonosticta rubricata* and a **Cape Bunting** *Emberiza capensis*, two other slightly out-of-range species.

Belated news concerns a **Böhm's Bee-eater** *Merops boehmi* photographed at the campsite in Gorongosa National Park on 9 August 2009; the only previous record for the southern African subregion dates from December 1972, when two were seen *c*.40 km north-west of Mount Gorongosa (per *sa-rarebirdnews@googlegroups.com*).

Namibia

In January–June 2013 the following were reported. As usual, Mile 4 Salt Works near Swakopmund produced many noteworthy records, including up to two **Common Redshanks** *Tringa totanus* and a **Buff-breasted Sandpiper** *Calidris subruficollis* in January–early March, a **Franklin's Gull** *Leucophaeus pipixcan* on 12 January, and an **Elegant Tern** *Thalasseus elegans* on 22 January–3 March, with a second also there on 17 February. At Walvis Bay, a **Eurasian Oystercatcher** *Haematopus ostralegus* was still present on 10 February. Other noteworthy waders at this site included an **American Golden Plover** *Pluvialis dominica* in February–April, with a second there on 15–31 March, a **Pacific Golden Plover** *P. fulva* on 3 March–1 May, a **Black-tailed Godwit** *Limosa limosa*, a **Wilson's Phalarope** *Phalaropus tricolor* on 15–31 March, >50 **Red-necked Phalaropes** *P. lobatus* in February–April and several **Red Phalaropes** *P. fulicarius* in March.

A **Spectacled Petrel** *Procellaria conspicillata* was reported *c*.180 nautical miles west of Walvis Bay in early May. A far out-of-range **Rufous-bellied Heron** *Ardeola rufiventris* was reported from Monte Christo, *c*.30 km north-west of Windhoek, on 3 February. A **Lesser Black-backed Gull** *Larus fuscus* was at Lake Liambezi in early January. A **Gull-billed Tern** *Gelochelidon nilotica* was seen on the Andoni Plains, north of Etosha, on 13 March, whilst two **Caspian Terns** *Hydroprogne caspia* were at Hardap Dam, between Keetmanshoop and Windhoek, in June. A **Black-eared Sparrow Lark** *Eremopterix australis* was observed *c*.60 km south-east of Walvis Bay on 26 April, well north of its usual range. **Village Indigobirds** *Vidua chalybeata* of the white-billed *okavangoensis* race were reported from the Windhoek area in late March–early April (per *sa-rarebirdnews@googlegroups.com*).

Niger

The current security situation means that recent reports are scarce. Evidence of migration across the Sahara was found for **Eurasian Spoonbill** *Platalea leucorodia* and **Slender-billed Gull** *Chroicocephalus genei*, both of which were photographed at a pool on the eastern side of the Aïr on 26 January 2013, during a survey by the Sahara Conservation Fund (*AM*). A **Grey Pratincole** *Glareola cinerea* was photographed on 22 June 2012 at Tam wetland on the Komadougou-Yobé River, at the border with Nigeria, 150 km from Lake Chad (*DK*); the only other record of this species in Niger away from the Niger River, from 1975, was nearby. An **African Thrush** *Turdus pelios* also seen at Tam wetland on the same day is the first record east of Zinder (*DK*). An old record has surfaced of a **Baillon's Crake** *Porzana pusilla*, trapped on 9 October 1987 at the edge of a wetland near Makalondi in the south-west (*PS*); the only other country record was made 15 years later. All records above are included in the Niger Bird DataBase www.nibdab.org (*JB & UL*).

Rwanda

A **Crested Barbet** *Trachyphonus vaillantii* was observed near the golf course in Kigali on 18 May 2013; this is apparently a new locality for this species, which was previously known only from Akagera National Park (=NP) on the eastern border (*CC, MH & JH*). After having been observed for six consecutive years during its migration through the country in May, no **African Pittas** *Pitta angolensis* were recorded in 2013; the first sightings date from May 2007, when it was found in Buhanga Eco-Park and Musanze. **Peter's Twinspot** *Hypargos niveoguttatus*, a rare bird in Rwanda, was recorded in Mashoza Forest, a small and unprotected patch in the east; the species was previously known only from Akagera NP (*CN*).

Senegal

The following observations were made during field work in Djoudj NP (including areas close to the park's border, especially in inundated areas east and south-east of the villages of Tiguet and Debi) between 5 January and 4 February 2013. A **Eurasian Bittern** *Botaurus stellaris* was seen at Grand Lac on 31 January; additionally, moulted feathers were found at three locations. **Black Storks** *Ciconia nigra* were observed on 20 days, usually in small groups, the largest of 36, on 18 January. On the same date, the max. number of **Black Crowned Cranes** *Balearica pavonina*, 30 individuals, was counted. Thirty **Baillon's Crakes** *Porzana pusilla* were trapped and ringed and a few more observed in inundated grassy plains at different locations. Two **Little Crakes** *P. parva* were ringed and up to five observed along an area of *Typha* of a few hundred metres near the 'station biologique'. Seven **Spotted Crakes** *P. porzana* were trapped at different locations. Several **Temminck's Stints** *Calidris temminckii* were observed, amongst them a group of 12 on 2 February. A **Marsh Owl** *Asio capensis* was photographed south of Tiguet on 8 January (Figs. 28–29). A **Grasshopper Warbler** *Locustella naevia* was singing near Tiguet on 9 January, one was seen near Diadem II on 12 January and two were ringed south-east of Debi on 26 January. Five **Aquatic Warblers** *Acrocephalus paludicola* were captured on 8 January, including a bird ringed at almost the same place on 24

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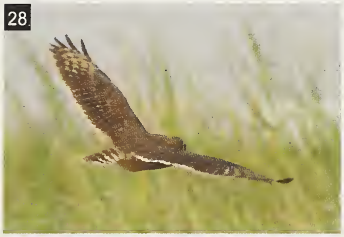

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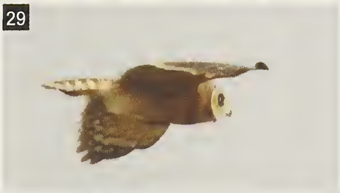

Figure 28–29. Marsh Owl / Hibou du Cap *Asio capensis*, south of Tiguet, Senegal, 8 January 2013 (Marco Thoma)

December 2010, and at least three additional, unringed individuals were seen on 9th in the same area of < 200 × 200 m south of Tiguet (*MT, PB & NSe).*

Seychelles

Reports received by Seychelles Bird Records Committee (SBRC) from the period November 2012–May 2013 included two firsts for the country: **Pied Avocet** *Recurvirostra avosetta*, on Bird on 23 November (Fig. 30) and, probably the same individual, on Grand Soeur on 29 December, and **Madagascar Kingfisher** *Alcedo vintsioides* (Fig. 31) on Picard, Aldabra, on 20 March. A **Red-billed Duck** *Anas erythrorhyncha* on Aldabra on 30 November was a second record for Seychelles, but was possibly the same individual as the first record in January 2012, being in the same remote location.

The third and fourth **Whinchats** *Saxicola rubetra* were recorded on Bird on 17–19 November and on Desroches on 17 November. An **Icterine Warbler** *Hippolais icterina* on Bird on 16 November, a **European Nightjar** *Caprimulgus europaeus* also there on 19 November, and a **Broad-billed Sandpiper** *Calidris* (*Limicola*) *falcinellus* on Mahé on 20 December were fifth reports for Seychelles.

Also of interest were three **Little Egrets** *Egretta garzetta* on Bird on 22 November and one on Île Persévérance on 1–12 May, a **Eurasian Hobby** *Falco subbuteo* on Bird on 24 November, single **Eleonora's Falcons** *F. eleonorae* on Assumption on 14–21 November and on Aldabra on 27 December and 12 April, two **Common Snipes** *Gallinago gallinago* on Bird on 18–24 November, a **Gull-billed Tern** *Gelochelidon nilotica* on Île Persévérance on 30 November, a **European Turtle Dove** *Streptopelia turtur* on Alphonse on 22 January (eight previous records), single **Common Swifts** *Apus apus* on Bird on 17 November and Aldabra on 27 December and 30 January, a **Broad-billed Roller** *Eurystomus glaucurus* on Alphonse on 12–13 March (18 records east of the Aldabra group, where it is an annual visitor), a **Mascarene Martin** *Phedina borbonica* on Aldabra on 8 April (ten records), a **Common Sand Martin** *Riparia riparia* on Desroches on 11 March, a **White Wagtail** *Motacilla alba* on Farquhar on 16–22 November, single **Red-throated Pipits** *Anthus cervinus* on Alphonse on 2–11 December and Aldabra on 3–4 January, a **Common Redstart** *Phoenicurus phoenicurus* on Bird on 15–21 November, single **Northern Wheatears** *Oenanthe oenanthe* on Alphonse on 27 December, Bijoutier on 21 January, Aldabra on 4 February, Desroches on 8 February and again on Aldabra on 13–17 February, a **Spotted Flycatcher** *Muscicapa striata* on Bird on 18 November, a **Red-backed Shrike** *Lanius collurio* on Bird on 24 November (seven records), a **Eurasian Golden Oriole** *Oriolus oriolus* on Assumption on 27 November and up to four on Aldabra on 19 December–8 January, and an **Ortolan Bunting** *Emberiza hortulana* on Alphonse on 11 February (five records).

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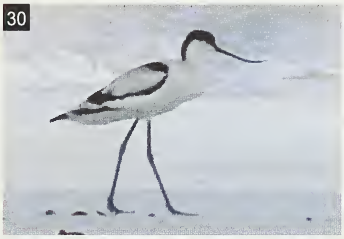

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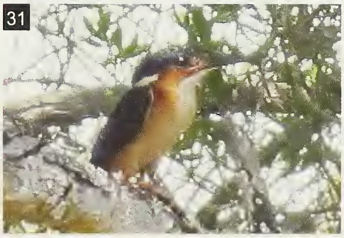

Figure 30. Pied Avocet / Avocette élégante *Recurvirostra avosetta*, Bird Island, Seychelles, 23 November 2012 (N. J. Phillips)

Figure 31. Madagascar Kingfisher / Martin-pêcheur vintsi *Alcedo vintsioides*, Aldabra, Seychelles, 20 March 2013 (C. Ferguson)

Old reports that have only come to the attention of SBRC recently include a **Wilson's Storm-petrel** *Oceanites oceanicus* on board a vessel 193 miles north-northwest of Bird on 23 October 1962, which flew off south; this has been accepted as chronologically the first Seychelles record (seven subsequent records have been accepted). A female **Desert Wheatear** *Oenanthe deserti* on Denis on 23–24 November 2009 was the third for the archipelago; the first two (first-year males on Bird and Cousine, possibly the same individual) were also reported in November 2009. A **Greater Short-toed Lark** *Calandrella brachydactyla* on Denis on 24 September 2009 was the fifth record for Seychelles (per *AS*).

Somaliland

A tour to Somaliland in September 2012 managed to locate all of the potential Somali endemics and specialities, including **Archer's Buzzard** *Buteo* (*augur*) *archeri*, **Little Brown Bustard** *Eupodotis humilis*, **Somali Pigeon** *Columba oliviae*, **Somali Lark** *Mirafra somalica*, **Collared Lark** *M. collaris*, **Lesser Hoopoe Lark** *Alaemon hamertoni*, **Somali Wheatear** *Oenanthe phillipsi*, **Somali Thrush** *Turdus ludoviciae*, **Philippa's Crombec** *Sylvietta philippae*, **Somali Golden-winged Grosbeak** *Rhynchostruthus louisae*

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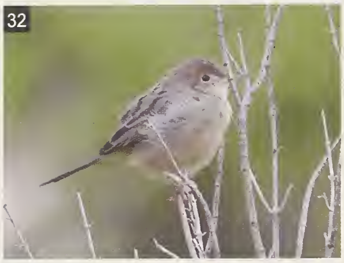

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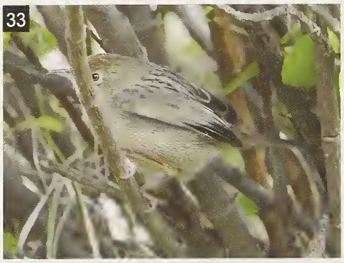

Figures 32–33. Unknown cisticola / Cisticole inconnue *Cisticola* sp., Daallo Forest, Somaliland, 21 September 2012 (Nigel Redman)

and **Warsangli Linnet** *Carduelis johannis*. Unsurprisingly, for a region so rarely visited by birders, quite a few range extensions were noted, such as **Zitting Cisticola** *Cisticola juncidis* on the Quoryale Plain on 12th (this species was first found in the country only in 2010) and **Pectoral-patch Cisticola** *C. brunnescens* south of Ceerigaabo on 18th, which was much further east than previous records. In addition, a number of empty squares in the Somali atlas (Ash & Miskell 1998. *Birds of Somalia*) were duly filled to help give a more complete picture of the true ranges of Somali birds, and a **Purple Heron** *Ardea purpurea* in a wet wadi south of Ceerigaabo on 22nd is apparently the first ever for Somaliland. The most surprising find, however, was an unknown **cisticola** *Cisticola* sp. in Daallo Forest. Three birds were seen in *Salvia* bushes on 21st (Figs. 32–33); no song was heard, but their plumage and morphology do not match any of the cisticolas currently known from Somaliland, and these birds thus represent either a new species for Somaliland or a new taxon (*NR*).

South Africa

Records from January–June 2013 include the following. The most popular vagrant of the period was a **Northern Rockhopper Penguin** *Eudyptes moseleyi* which stayed at Soetwater Resort, near Kommetjie, Western Cape, on 30 January–3 February; what was almost certainly the same bird was discovered at Onrus on 19 February, but it had disappeared the next day. Another major rarity was a **Snowy** (Greater) **Sheathbill** *Chionis albus* found at Mazeppa Bay, Eastern Cape, on 20 June, which remained there until at least the end of the month; like its few predecessors, this was almost certainly a ship-assisted bird.

Noteworthy species seen in the waters south and west of Cape Point included **Southern Royal Albatross** *Diomedea epomophora* (singles on 12 May and 29 June), **Northern Royal Albatross** *D.* (*e.*) *sanfordi* (one on 16 March), **Wandering Albatross** *D. exulans* (singles on 6 April and 14 May), **Sooty Albatross** *Phoebetria fusca* (one on 14 May), **Salvin's Albatross** *Thalassarche* (*cauta*) *salvini* (one on 25 May), **Chatham Albatross** *T.* (*c.*) *eremita* (one in early May; fifth record for the subregion), **Spectacled Petrel** *Procellaria conspicillata* (singles on 30 December, 6 April and 29 June) and **Flesh-footed Shearwater** *Puffinus carneipes* (one on 23 February). South of St. Francis Bay, Eastern Cape, at least two **Wandering Albatrosses** were reported in early March and a **Barau's Petrel** *Pterodroma baraui* in late January. A **Spectacled Petrel** was observed offshore from Hondeklip Bay, Northern Cape, on 3 March.

A **Red-tailed Tropicbird** *Phaethon rubricauda* was found near the entrance to Cape Town harbour on 22 March. At least two **Australian Gannets** *Morus serrator* were still present on Malgas Island in Saldanha Bay, Western Cape, in January–February. A **Eurasian Bittern** *Botaurus stellaris* was seen on the Nibela Peninsula, KwaZulu-Natal, on 2–10 February, whilst another was heard at Nysvlei Nature Reserve, Limpopo, on 16 February. There was a report of a **Black Heron** *Egretta ardesiaca* from Kwandwe Game Reserve, Eastern Cape, on 15 February. In Western Cape, **Goliath Herons** *Ardea goliath* were recorded at Rondevlei Nature Reserve (1–2), Zandvlei (one) and Berg River near Velddrif (at least three) in late January–early February, and near Plettenberg Bay on 21 April (one). An **African Openbill Stork** *Anastomus lamelligerus* was observed near Caledon, Western Cape, on 26 April. The **Abdim's Stork** *Ciconia abdimii* first seen in Western Cape in October 2012 was occasionally reported from different locations in the province until mid May. One was also reported from Graaff-Reinett, Eastern Cape, on 11 March and at St. Francis Bay, in the same province, on 20 May. A **Marabou Stork** *Leptoptilos crumenifer* remained in the Bredasdorp area, Western Cape, from late January until at least early May.

In January–early April, reports involving at least 43 **European Honey Buzzards** *Pernis apivorus* were received from Limpopo, Mpumalanga, Gauteng, KwaZulu-Natal, Free State, Eastern Cape and Western Cape. An immature **Palm-nut Vulture** *Gypohierax angolensis* was feeding on a carcass near Mossel Bay, Western Cape, on 21 February. An **Egyptian Vulture** *Neophron percnopterus* was observed in the south of Kruger National Park (=NP), Mpumalanga, on 13–15 May. Records of **Brown Snake Eagle** *Circaetus cinereus* in Western Cape included one *c.*70 km east of Beaufort West on 16 January, one in Tulbagh on 19 February, one *c.*30 km east of Beaufort West on 6 March, one between the N7 and Kalbaskraal on 9–10 March, and one near Agulhas on 24 March. Up to three **Bateleurs** *Terathopius ecaudatus* were in Western Cape in February–March, whilst in Eastern Cape singles were reported from Addo NP in early January, Humansdorp on 20 January, and Grahamstown on 12 February. Single **Western Marsh Harriers** *Circus aeruginosus* were reported from Limpopo (Nysvlei Nature Reserve, 16 February and 17 March), Gauteng (Marievale Bird Sanctuary, 13–16 January), North

West Province (Kgomo Kgomo area, early March), Mpumalanga (Wakkerstroom, 20 February) and Free State (Seekoeivlei Nature Reserve near Memel, 11 February; apparently the third successive season that it has returned to this site). A **Lesser Spotted Eagle** *Aquila pomarina* was observed near Devon, Gauteng, on 13 January and a **Long-crested Eagle** *Lophaetus occipitalis* near Mossel Bay, Western Cape, on 3 April. A large flock of **Amur Falcons** *Falco amurensis* was feeding in fields near Bontebok NP, Western Cape, on 6 February; elsewhere in the province, 30 were near Wilderness and six near Karatara on 7 March, and several along the Garden Route on 24 March. Also in Western Cape, a **Sooty Falcon** *F. concolor* was still present in Plettenberg Bay in March–early April and an **African Hobby** *F. cuvierii* was seen near Kliprand, in the north, on 30 March.

A **Baillon's Crake** *Porzana pusilla* stayed at Intaka Island Wetland Reserve, Century City, Western Cape, on 19 January–3 February. In Mpumalanga, a **Grey Crowned Crane** *Balearica regulorum* was at Nsemani Dam in Kruger NP on 26 May; it seems that there is only one relatively recent confirmed record for the park, from 1972. Single **Eurasian Oystercatchers** *Haematopus ostralegus* were seen in West Coast NP, Western Cape, on 17 February and 23 June. A **Greater Sand Plover** *Charadrius leschenaultii* was found at Voëlvlei near Vleesbaai, Western Cape, on 30 December. At Mpempe Pan, north of Hluhluwe, KwaZulu-Natal, 8–10 **Caspian Plovers** *C. asiaticus* were present on 14 January, whilst a **Pacific Golden Plover** *Pluvialis fulva* was present on 3–13 January. In January–early April, reports involving at least 18 **Pectoral Sandpipers** *Calidris melanotos* were received from Limpopo, Mpumalanga, Gauteng, North West Province, KwaZulu-Natal, Free State, Eastern Cape and Western Cape. In Gauteng, single **Black-tailed Godwits** *Limosa limosa* were noted at Marievale Bird Sanctuary in January and Dicken's Pan in February. Up to two **Common Redshanks** *Tringa totanus* stayed in West Coast NP, Western Cape, from 7 January–19 May. Single **Green Sandpipers** *T. ochropus* were reported from North West Province (Kgomo Kgomo, 29 January), Mpumalanga (Kruger NP, 7 February), Gauteng (Waterfall Estate, Midrand, 27 January–3 February) and KwaZulu-Natal (Thula Thula Private Game Reserve, near Empangeni, 16 January). At least one **Red-necked Phalarope** *Phalaropus lobatus* was at the Velddrif salt pans, Western Cape, on 1 March. A **Red Phalarope** *P. fulicarius* was at Kwena Dam, Mpumalanga, on 24 January, with another on a dam in Weenen Game Reserve, KwaZulu-Natal, on 24 March.

In Western Cape, sightings at different locations of adult **Franklin's Gulls** *Leucophaeus pipixcan*, reported in the period 29 March–30 April, possibly concern the same individual. Up to two were present in Richards Bay, KwaZulu-Natal, on 3–12 May, with one at Port Elizabeth, Eastern Cape, on 4 June. An immature **Black-headed Gull** *Chroicocephalus ridibundus* was claimed from Strand, Western Cape, on 16 June. A **Lesser Black-backed Gull** *Larus fuscus* stayed at Glen Austin Pan, Midrand, Gauteng, on 18–27 January; another was seen at Nahoon estuary, Eastern Cape, on 3 April, whilst up to two were present at East London, Eastern Cape, on 14 April–28 June. In Northern Cape, a juvenile **Kelp Gull** *L. dominicanus* at a dam *c.*50 km north of Upington, *c.*450 km from the nearest coast, on 19 March is a rather odd record. A pelagic trip out of Durban, KwaZulu-Natal, produced two **Sooty Terns** *Onychoprion fuscatus* on 23 June. A **Black Tern** *Chlidonias niger* remained at Strandfontein Sewage Works, Western Cape, on 5 January–24 February. In North West Province, an **African Skimmer** *Rynchops flavirostris* was reported from Vaalkop Dam on 22 April, with up to four there from 26 April until at least 11 May. In neighbouring Limpopo, one (possibly one of the individuals from Vaalkop Dam) was located at Rust de Winter Nature Reserve on 4 May.

A **Verreaux's Eagle Owl** *Bubo lacteus* was still present in Thula Thula Private Game Reserve, KwaZulu-Natal, on 13 January. A **Blue-cheeked Bee-eater** *Merops persicus* was seen at Jeffrey's Bay, Eastern Cape, on 6 January, with another in Kgalagadi Transfrontier Park, Northern Cape, on 22 March. A **Crested Barbet** *Trachyphonus vaillantii* in Maclear, Eastern Cape, in late January, was well out of range.

A **Black-eared Sparrow Lark** *Eremopterix australis* was discovered *c.*40 km north-east of Grahamstown, Eastern Cape, on 5 May; this is apparently the species' south-easternmost sighting, *c.*230 km from the nearest record. Two **Grey Wagtails** *Motacilla cinerea* were at Debegeni Falls in Magoebaskloof, Limpopo, on 24 February—yet another season that this rarity returns to this site. A **Yellow-breasted Pipit** *Anthus chloris* was located at Suikerbosrand Nature Reserve, Gauteng, on 18 May, with at least three there on 26 May–20 June. A **River Warbler** *Locustella fluviatilis* was mist-netted at Buffelsdrift, Gauteng, on 12 January. **Marsh Warblers** *Acrocephalus palustris* were recorded in George, Western Cape, on 16 January (one) and along the Garden Route on 24 March (several). The **Groundscraper Thrush** *Psophocichla litsitsirupa* that was first reported from Bredasdorp, Western Cape, in November 2011 was apparently still present in February. A **White-browed Scrub Robin** *Cercotrichas leucophrys* ringed near Nature's Valley on 17 April is a remarkable record for Western Cape; a second was mist-netted on 19 May, near Plettenberg Bay airport, *c.*40 km away, and a third on 22 May again at Nature's Valley. A **Crimson-breasted Shrike** *Laniarius atrococcineus* near Graaff-Reinet, Eastern Cape, in late January, was far outside its usual range. An **Eastern Black-headed Oriole** *Oriolus larvatus* was reported from a garden in Kimberley on 15 June; this appears to be the first record for Northern Cape. A **Yellow-billed Oxpecker** *Buphagus africanus* was photographed on a Giraffe *Giraffa* *camelopardalis* in Tswalu Kalahari Reserve, Northern Cape, on 27 January; this is *c.*700 km south of its range in Botswana and may represent the first province record. An influx of **Lark-like Buntings** *Emberiza impetuani* occurred in January–May, with birds being recorded in Western Cape in January and subsequently moving east to North West Province, Gauteng, Mpumalanga, Free State and KwaZulu-Natal (per *TH*; *sa-rarebirdnews@googlegroups.com*).

Zimbabwe

Records from November 2012–June 2013 include the following. A tagged **Cape Vulture** *Gyps coprotheres* (no. C.104) was photographed in Gonarezhou National Park, in the south-east, on 18 May (*BF*). **Bat Hawks** *Macheiramphus alcinus* were preying on roosting Barn Swallows *Hirundo rustica* at How Mine, near Bulawayo, on 24 February (*AE*); one flew over Art Farm Dam, Harare, on 12 April (*IM*). A melanistic **Gabar Goshawk** *Micronisus gabar* at Greystone Park Nature Reserve, Harare, was photographed on 1 March (*IM*); these birds seem much more common in Harare than 30 years ago. Fourteen **Lesser Jacanas** *Microparra capensis* at Nyamungai Pan, Seki, on 3 February was a good count; this species is not often recorded by the African Waterbird Census (*AMa*). A **Black-tailed Godwit** *Limosa limosa* and a **Terek Sandpiper** *Xenus cinereus* were in the Mana Pools area in the second half of June (per *sa-rarebirdnews@googlegroups.com*). A pair of **Grey-headed Parrots** *Poicephalus fuscicollis* was nesting in an Ilala palm on the banks of the Zambezi, Victoria Falls, on 16 April (*CBr*); the species is now rare in this area due to excessive trapping for the cagebird trade. An **African Grass Owl** *Tyto capensis* was seen at Monavale Vlei, Harare, on 11 March (*IR*). A nest of **Pel's Fishing Owl** *Scotopelia peli* in a large baobab tree at Hippo Pools, Shamva, contained an egg in January; on 1 June the chick was still in the nest, which was 1 km from the Umfurudzi River and 3 km from the Mazowe River (*DR-G*).

An **African Pitta** *Pitta angolensis* was recorded at Muchachiri Lodge for the second consecutive year on 14 November (*DA*). A **Mountain Wagtail** *Motacilla clara* observed in Greystone Park, Harare, on 5 December (*MG*) is a very unusual record for this locality. In the little-visited north of Umfurudzi Park, **Spotted Creepers** *Salpornis spilonotus* were seen on 20 March (*DR-G*). In the same park, an **Arnot's Chat** *Myrmecocichla arnotii* was encountered for the first time in ten years (*DR-G & TN*). Five **Lark-like Buntings** *Emberiza impetuani* were at Stonehills Farm, Marula, on 18 April (*RD & DR-G*); the species had not been recorded at this site previously (per *DR-G*).

Records were collated by Ron Demey from contributions supplied by Derek Gomez Adams (DA), Rubén Barone (RB), Peter Becker (PB), Michiel van den Bergh (MvdB), BirdLife Botswana (BLB), Gavin & Marjorie Blair (GB & MB), Mark van Boekel (MvB), Chris Brewster (CB), Charles Brightman (CBr), Joost Brouwer / Niger Bird Database (JB), V. Cerdeña (VC), Ken Clark (KC), Callan Cohen (CC), Mary Crickmore (MC), Colin Cross (CCr), Richard Dennison (RD), Department of Wildlife & National Park staff, Botswana (DWNP), Adele Edwards (AE), Eddy Everaerdt (EE), M. Fernández del Castillo (MF), Ali Flatt (AF), Roger Fotso (RF), Bradley Mark Fouche (BF), Mike Garden (MG), Fraser Gear (FG), João Guilherme (JG), Michael Højgård Hansen (MHa), Trevor Hardaker (TH), Dean Hatty (DHa), Jon Hemp (JH), Marje Hemp (MH), David Hoddinott / Rockjumper Birding Tours (DH), Colin Jackson (CJ), Bassel abi Jummaa (BaJ), Martin Kays (MK), David Kusserow (DK), Marc Languy (ML), Rolf Larsson (RL), Ulf Liedén (UL), Enrico Leonardi (EL), Tim Liversedge (TL), Ian MacDonald (IM), Alex Masterson (AMa), Alkabouss Matchano (AM), Johannes & Sharon Merz (JM & SM), Michael Mills / Birding Africa (MM), Mark Muller (MMu), Antony Mulligan (AMu), Tadious Ndadzira (TN), Claudien Nsabagasani (CN), Georges Olioso (GO), Bruno Portier (BP), Matt Prior (MP), Richard Randall (RR), Nigel Redman / Birdquest (NR), Brent Reed (BR), Grant Reed (GR), Ian Riddell (IR), Dave Rockingham-Gill (DR-G), Steve Rooke / Sunbird (SR), Nina Seifert (NSe), Anthony Shuttleworth (ASh), Nkosi Sibanda (NS), Jez Simms (JS), Lionel Sineux (LS), Roger Skeen (RS), Adrian Skerrett (AS), Walter Smith (WS), Pierre Souvairan (PS), Marco Thoma (MT), Cadnel Toundoh (CT), Steph Tyler (ST), Mark Vandewalle (MV), Nigel Voaden (NV), Phil Zappala (PZ), and from Birding World, Dutch Birding, *sa-rarebirdnews@googlegroups.com, www.azoresbs.weebly.com and www.go-south.org.*

Contributions for Recent Reports can be sent to Ron Demey, Walter Thijsstraat 9, B-3500 Hasselt, Belgium and (preferably) by e-mail: rondemey1@gmail.com or recent_reports@africanbirdclub.org

Corrigenda Recent Reports *Bull. ABC* 20(1)

Two legends to photographs that appeared in previous RR need to be corrected.

Fig. 18 (p. 98) is not a Cinereous Bunting *Emberiza cineracea* but a first-winter Ortolan Bunting *E. hortulana.*

In the legend to Fig. 19, on the same page, '(back left)' was wrongly placed and 'White-backed Vulture'was erroneously in plural. The correct legend should read:

Figure 19. Immature Rüppell's Vultures *Gyps rueppellii* with White-backed Vulture *G. africanus* (back left), Mole National Park, Ghana, 18 December 2012 (David Hoddinott / Rockjumper Birding Tours)

Vautours de Rüppell *Gyps rueppellii* immatures avec Vautour africain *G. africanus* (en arrière-plan à gauche), Parc National de Mole, Ghana, 18 décembre 2012 (David Hoddinott / Rockjumper Birding Tours)

Reviews

Several books reviewed in the *Bulletin*, and many others, including the major African field guides and avifaunas, can be purchased via the African Bird Club website from WildSounds. The Club receives a donation for its Conservation Fund for every item purchased via the Books and Media Sales page. Click the 'Buy Now' button by the relevant book to check the latest price, purchase the item and help us to protect Africa's birds.

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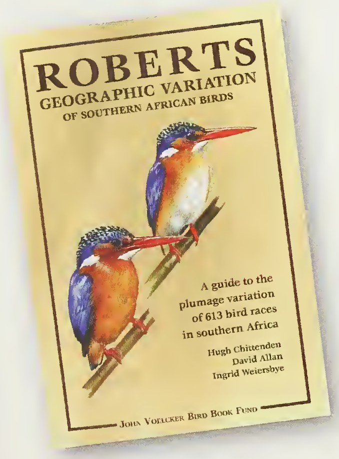
Plusieurs livres analysés dans le *Bulletin*, et beaucoup d'autres, parmi lesquels les guides et avifaunes les plus importants, peuvent être achetés via le site web de l'African Bird Club auprès de WildSounds. Pour chaque article acheté via la page « Book and Media Sales », le Club reçoit une donation pour son Fonds pour la Conservation. Cliquez sur l'onglet 'Buy Now' à côté de l'article recherché afin de vérifier le dernier prix, et aidez-nous à protéger les oiseaux africains en l'achetant.

Roberts Geographic Variation of Southern African Birds

Hugh Chittenden, David Allan & Ingrid Weiersbye, 2012. Cape Town: John Voelcker Bird Book Fund. 288 pp, 105 colour plates. Softback. ISBN 978-1-920602-00-0. UK£24.99

The passion for birding has grown hand-in-hand with its accoutrements, and together they have spurred each other's development. Besides binoculars, nothing is as vital to a birder as books and, as we all know, virtually every facet of birds and birding seems to have been covered by countless tomes. However, only a very few publications can be considered groundbreaking.


ROBERTS
GEOGRAPHIC VARIATION
OF SOUTHERN AFRICAN BIRDS
A guide to the plumage variation of 613 bird races in southern Africa
Hugh Chittenden
David Allan
Ingrid Weiersbye
John Voelcker Bird Book Fund

Among those outstanding works that have changed the course of birding literature are Audubon's *Birds of America* (1827–38)—the first regional bird book illustrated with high-quality and true-to-life bird art; Roger Tory Peterson's *Guide to the Birds* (1934)—the first modern field guide that spawned a multitude of other publications; and Lynx Edicions' *Handbook of the Birds of the World* (1992–2013)—a 17-volume series illustrating the entire world's avifauna. Once again, I believe, we have another book that has added a new dimension to the way we will perceive birds and birding, namely *Roberts Geographical Variation of Southern African Birds*, published by the John Voelcker Bird Book Fund.

This groundbreaking guide takes us to the next level of birding—subspecific and geographic variation. It sets out to comprehensively cover the subspecies of birds known to occur within southern Africa (the region encompassing South Africa, Lesotho, Swaziland, Namibia, Botswana, Zimbabwe and Mozambique south of the Zambezi). Of southern Africa's 965 recorded species, 224 species show subspecific variation and these are the only species treated herein. As a result, potential purchasers must be aware that this guide will not suffice as a single source of reference when birding in southern Africa. However, what *Roberts Geographical Variation* does do is describe the distinctive features and map the distributions of all 613 of these subspecies. Furthermore, Weiersbye has illustrated *c*.70% of them, basically depicting every form that is separable in the field. The remaining 30% differ only in size and are thus not illustrated. This now permits a birder to identify the subspecies they are observing using plumage and bare-part characters, not only distribution.

Not only will this book stimulate more careful scrutiny of the region's birds and create an awareness of regional variation, but it will also correct some common errors of misidentification resulting from use of current field guides, which typically illustrate just one form of a variable species. For example, many Cape-based birders misidentify Southern Double-collared Sunbird *Cinnyris chalybeus* when visiting KwaZulu-Natal since the eastern *subalaris* form of Southern Double-collared has a breast-band more than twice the width (thus resembling Greater Double-collared Sunbird *C. afer*) of their familiar Cape *chalybeus* subspecies. Poring over the plates, I was frequently dumbstruck at the remarkable differences between populations of the same species within such a small region and have felt equally embarrassed that I haven't noticed some these in the field (for example the six African Green Pigeon *Treron calvus* subspecies). I will certainly be more observant when birding in future and this publication has already added a new dimension to my birding.

The guide is compact and well bound with a hard, weather-resistant plastic cover (one of the many modern field guide features adopted). Others include a useful two-page illustrated quick index on the inner front cover and an alphabetical quick index immediately thereafter, plus a double-page spread with four maps of the region: political, elevation (this one lacks interpretation codes), rainfall and habitat. Next is an extensive and well-balanced introduction that is well worth reading. Here the concept and evolution of subspecies is covered in both generic and regional terms with excellent examples, mostly illustrated by Chittenden's high-quality photographs. Furthermore, the history of subspecific taxonomy and the region's most influential taxonomists are discussed, providing a comprehensive background to the subject. A further discussion outlines 18 subspecies that the authors feel may warrant specific status—something for 'listers' to watch out for! Seven pages of glossary finally lead to the book's core: 105 high-quality plates with accompanying text and maps.

Again adopting user-friendly modern field guide practice, the birds are illustrated opposite the relevant text and maps on each double-page spread. On the left page, each species text commences with an overview covering distribution, the number of subspecies (in total and within the region covered), abundance and movements, conservation status (a vital aspect far too often ignored in field guides) and sexual variation. Thereafter, each subspecies is individually discussed. Nomenclature is outlined, including the type locality and interpretation of the scientific name (I personally find etymology particularly fascinating and appreciate its inclusion), the key identification features and finally the habitat preferences of each subspecies. This is accompanied by a map that is colour-coded with the distribution. The same colour codes are cross-referenced to the plate on the opposite page where Weiersbye's painstakingly accurate illustrations are placed. Another extremely useful aspect is that the key identification features are again outlined next to each illustration for ease of reference. Additional features include the coverage of colour forms within certain subspecies, illustrations of wing patterns and formulae, even individual feathers where necessary, as well as maps of the subspecific breeding ranges of some Palearctic forms, such as European Nightjar *Caprimulgus europaeus*. Certainly no effort has been spared by the authors in making this book as comprehensive and user-friendly as humanly possible.

Weiersbye has proved herself to be arguably southern Africa's premier bird artist and has done herself proud with the plates here. The technical detail is staggering and the illustrations world class. Nevertheless, some are better than others; for instance, I particularly enjoyed the mousebirds (Coliidae) and Cardinal Woodpeckers *Dendropicus fuscescens*, but a few seemed slightly less lifelike, such as some of the long-billed larks (*Certhilauda* spp.) and wagtails (*Motacilla* spp.). Overall, however, Weiersbye has more than ably pulled off a formidable task.

Little detracts from this book. I would have wished for some alternative names, especially those that are still used by longer established southern African birders. There are a few errors in the text and plates (e.g. maps of African Goshawk *Accipiter tachiro*, African Barred Owlet *Glaucidium capense* and Garden Warbler *Sylvia borin*), but these are few and far between. The taxonomy and nomenclature chosen by the authors follow the International Ornithological Congress with a few deviations allowed for historically entrenched local exceptions. A 13-page appendix indexing the illustrations to museum specimen registration numbers is, I feel, beyond the scope of a field guide. It would have been better placed on a website and referenced in the introduction.

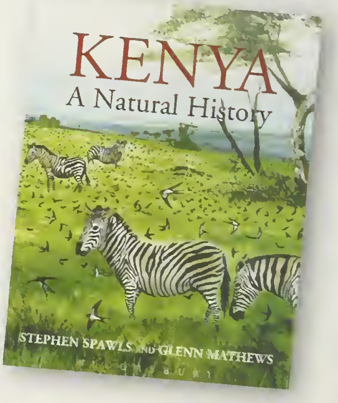
Overall, however, I cannot recommend this book more highly; it is the first monumental venture into field guides for subspecific variation. The three authors and the trustees of the John Voelcker Bird Book Fund must surely be proud to have taken the first brave step, which will no doubt be followed by similar field guides covering other regions in the world, and in the process will change the way that we look at birds and bird identification.

Adam Riley

Kenya: A Natural History

Stephen Spawls & Glen Mathews, 2012. London, UK: T. & A. D. Poyser. 448 pp, 200 illustrations. Hardback. ISBN 978-1-4081-3471-9. UK£45.

A great addition to East African literature, *Kenya: A Natural History* provides an engaging account of the nation's history, fauna and flora, and acts as a counterblast to an increasing array of specialist field guides. Although they are clearly critical for species identification, and support growing networks of citizen scientists, there is still room for generous natural history writing. So this is a welcome surprise, and Stephen Spawls and Glen Mathews are to be congratulated on



condensing Kenya's rich environment into such an elegant publication.

Thirteen chapters cover the country's geology, fossils and hominins (not hominids), its peoples, landscape, climate and weather, vegetation and habitats, followed by the fauna: mammals, birds, reptiles, amphibians, freshwater fish, the arthropods, and, I was pleased to see, the marine environment (too often overlooked in the land of the 'big five'), with a final chapter on conservation, coincidentally and perhaps a little wryly, numbered thirteen.

Each stands alone, so the book can be dipped into easily, but usefully they also follow a broadly similar pattern with an introductory section, and a history of the research, both historic and contemporary, citing a comprehensive range of references, including online. Italicised quotes open each chapter too, often in Swahili, including the advice, *Dudu liumalo silipe kidole*, urging us not to extend our fingers to insects that bite, or indeed, to evil people.

ABC members will find that a little under 10%—41 pages—is dedicated to the birds, with a general background, including origins and spread; a detailed review of the species numbers, migrations and zoogeography, and then their ecology, communities and populations, concluding with a history of Kenya's ornithology, the cultural value of birds, an account of Kenya's avifauna, its history, and finally a section on the literature.

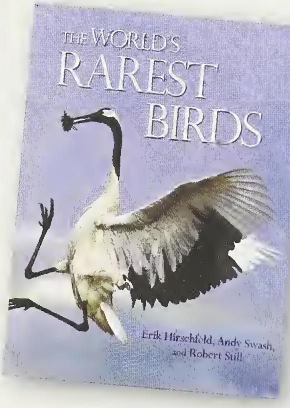
As elsewhere, the majority of the excellent photographs in the bird chapter are taken by Stephen Spawls. Looking at them, it is easy to recall one's delight at first encounters with species like Lilac-breasted Roller *Coracias caudatus*, White-fronted Bee-eater *Merops bullockoides* and Black-headed Gonolek *Laniarius erythrogaster*. With more than 1,100 species in Kenya, its birding is almost unparalleled. Indeed, the World Big Day record of 342 still stands from 1996 (two years later than the authors' state, and including all of Kenya, not just Lake Baringo) and the country continues to attract large numbers of birder tourists.

Martin Woodcock's fine cover painting of zebras surrounded by foraging swallows provides a simple reminder that Kenya's habitats play a critical role in the lives of seasonal visitors, from the hirundines to the numerous other species that form the core of dawn choruses across much of Eurasia.

For me, the chapter on amphibians bought back happy memories of frog-hunting in Sokoke Forest with the leading Africa herpetologist, Bob Drewes, and particularly watching Foam-nest Tree Frogs *Chiromantis xerampelina*, whose eggs sacs first shelter their eggs and then release tadpoles into the water below. They are also host to a remarkable robber frog, the Spiny Leaf-folding Frog *Afrixalus fornasinii*, which eagerly eats the eggs of its arboreal neighbour. Just the names of these amphibians are a pleasure, and include another coastal species, Bunty's Dwarf Toad *Mertensophryne micranotis*, which lays its eggs in old coconut and snail shells. Such details fill the pages, and are a source of constant revelation. It would be great to see similar books for other African countries emerge from this publisher.

All in all, Spawls and Mathews provide a strong sense of authors deeply in tune with Kenya's natural history, and clearly draw on their long friendship, and their well-honed teaching and safari-guiding skills. Throughout they sustain a strong, often amusing, narrative voice. It is easy to imagine copies strewn throughout the lodges, camps, colleges and schools of Kenya, and wider East Africa, bringing insight, and setting off a storm of independent enquiries. At the end of their preface, the authors urge us to 'Get out there, and get to know Kenya,' and 'Experience the thrill of Kenya's wild open spaces'. It is a lifetime's work, and surely *Kenya: A Natural History* could (and should) inspire a new generation of dedicated naturalists.

John Fanshawe



The World's Rarest Birds

Erik Hirschfeld, Andy Swash & Rob Still, 2013. Princeton, NJ: Princeton University Press/WildGuides. 360 pp, 877 colour photographs, 103 colour illustrations and 610 maps. Hardback. ISBN 978-0-691-15596-8. US$45.00/UK£34.95.

In 2008 and 2009 Erik Hirschfeld edited two volumes of the *Rare Birds Yearbook* that featured those species categorised as Critically Endangered by BirdLife International—close to 200 at the time. The introduction to the volume under review explains that, following a meeting between Erik and Andy Swash of WildGuides, it was decided to expand the project and produce a new volume to include those species categorised as Endangered or Data Deficient, as well as those regarded as Critically Endangered. Thus this book covers the world's 650 rarest bird species.

The authors sought to include photographs of as many species as possible and therefore organised a competition with a range of sponsored prizes, to which over 3,500 photographs were submitted. Many of these appear here, although photographs could not be sourced for 76 species, and these are illustrated by the Polish artist Tomasz Cofta, whose top-quality artwork matches the high standard of the photographs.

The first 50 pages include introductory chapters entitled 'Introduction to the world's birds', 'The world's rarest birds', 'The threats birds face', 'The need for conservation', and 'Threats without borders'. These are well written, providing a clear background to the 'problem' and are lavishly illustrated with many superb images.

The remainder of the book is divided into Regional Directories, which cover Europe & the Middle East, Africa & Madagascar, Asia, Australasia, Oceanic Islands, the Caribbean, North & Central America, and South America, with a final section covering Data Deficient Species. Each Regional Directory has its own introduction, which highlights particular regional 'hotspots' or specific threats (in the case of Africa, for example, Madagascar and Angola are the hotspots, and grassland management is the main threat discussed).

The relevant species that occur within each region are then covered in systematic order with four species per page. For each species there is a single photograph or illustration, a distribution map, a population estimate, a list of specific threats, and a paragraph of text numbering *c.*100–110 words. In addition, a QR code is provided for each species that can be read by a smartphone (if loaded using the QR Reader app) and will then open the latest version of the BirdLife International species factsheet. High-tech stuff, though possibly not that much faster than using Google to find the factsheet.

Species that occur in more than one region appear in both, with different texts tailored by directory. For example Rüppell's Vulture *Gyps rueppelli* appears under Africa and Europe, the main points being covered in the first-named section, while the text in the latter deals with the recent records in Spain and Portugal.

As the Africa & Madagascar section is likely to be of most interest to readers of this review, it is perhaps worth mentioning that 86 species are covered here, 15 of them Critically Endangered and 71 Endangered. No photographs could be sourced for 11 of these—a challenge for Club members for the next edition perhaps?

Although this new work clearly differs significantly from its predecessor volumes, a few comparisons are worth making. While the yearbooks were in a smaller format, each species was generally devoted a full page, meaning that far more information was provided for each than here. Obviously, the yearbooks covered less than one-third of the species treated herein, and similar coverage would have resulted in a very large book, so there is no easy answer to this conundrum. But, I do wonder about the maps. In the new volume, the entire map of Africa is used, even though most of the relevant species possess tiny ranges. In the earlier works, larger scale maps were used where necessary, for example, the map for Madagascar Fish Eagle *Haliaeetus vociferoides* in the *Rare Birds Yearbook 2009* covered Madagascar alone and therefore showed more detail than is possible here. It surely should have been possible, if more time-consuming, to produce maps on a scale tailored to the range of the species?

This is nit-picking. The authors have produced a superb book that summarises the threats faced by far too many species in the world today. They have illustrated each of those species well, and highlighted the urgent need to conserve them. We can only hope that the book inspires people around the globe to take more interest in the plight of these endangered birds, and to work in whatever way they can to support their survival. Purchasing this book makes a small start and I encourage readers to do so.

David Fisher

Nairobi National Park Bird Check List

Brian W. Finch, 2012. Nairobi: The Bird Committee of the East Africa Natural History Society. 48 pp. Paperback. ISBN 9966-761-20-9. KSh 300 (c.UK£2.50).

Nairobi is one of the best cities in the world for watching birds. This reflects the wide range of habitats found close to the city and, notably, the close proximity of the fabulous Nairobi National Park, situated right at the edge of the built-up zone. The park is well known for harbouring a huge number of birds and mammals, all within very easy reach of the Kenyan capital.

The last checklist of birds for the city was published in 1997 by Bill Harvey. It covered Nairobi City District, which included the National Park, and boasted an impressive total of 604 species. Records had been collated from a number of sources, but some of the species had not been recorded for many years and a few of them are now known to be erroneous. Of this total, 516 were listed from the National Park itself, including vagrants and some unsubstantiated records.

This new checklist has been compiled by Brian Finch, one of the most skilled and most active birders in East Africa. He has chosen to limit his list to Nairobi National Park and he lists 493 species, all but 12 of which he has personally seen since 1994, when he began making systematic records in the park. Six pages of introduction summarise the park's habitats and explain how to use the list. In the list itself, there are three columns of codes. These detail, for each species, its preferred habitat within the park, its seasonality, and the frequency of observation. A fourth column refers the reader to the sources for the 12 species not seen by the author (but without dates). An Appendix lists a further 65 species. These are older, poorly documented records or unsubstantiated recent records. They are similarly coded, like the main list, and bring the park's total to 558 species (versus the 516 species listed by Harvey). Although relegated to an appendix by the author, some of these older and unsubstantiated records will no doubt eventually find their way onto his main list.

The checklist is well produced and features photographs of African Finfoot *Podica senegalensis* on the front cover – a shy but regularly observed species in the park. On the back cover is the first published photograph of the so-called 'Nairobi Pipit', a probable new taxon, as yet undescribed, discovered by Finch in the park. This checklist provides a reliable baseline to work from, with a list of almost 500 fully acceptable species recorded in Nairobi National Park, and another list of everything else to look out for.

Nigel Redman

Birds of the Masai Mara

Adam Scott Kennedy, 2012. Princeton, NJ: Princeton University Press/WildGuides. 176 pp, more than 300 colour photographs. Paperback. ISBN 978-0-691-15594-4. £17.95.

Although Kenya possesses many amazing locations for birders to explore, in my opinion *the* highlight of any trip to the country is a visit to the rolling grasslands of the Masai Mara. The Mara is certainly one of the finest wildlife reserves in Africa, not only for birds but also for its herds of grazing mammals and their attendant carnivores. Combining the riverine woodlands and grassy slopes of the Oloololo escarpment, a three-day visit can easily reap you a haul of around 200 bird species. In fact, 550 species have been recorded in the reserve.

The book is packed with good-quality photographs, primarily taken by the author, and provides background information on 202 species. It is clearly aimed at a general market, not at hardcore birders. Identification features are kept to a minimum with the emphasis being on where and when the bird might occur. The species texts are organised into six main habitat types, together with a separate section for those species only likely to be seen in flight, plus another on nightbirds.

The choice of species is clearly slanted towards those that are most easily encountered on a general wildlife holiday. Although birders will enjoy the photographs, many species have been excluded so this would be a frustrating book if relied upon other than as an additional resource. Taking cisticolas as an example (a group where photographs can be a real asset), the only species covered are Rattling *Cisticola chiniana* and Pectoral-patch Cisticolas *C. brunnescens*. I observed five additional cisticolas in the Masai Mara on my last trip—in particular Stout Cisticola *C. robustus*, a common grassland species not included herein. However, easily seen non-passerines are generally better represented. The only error I spotted is under Bateleur *Terathopius ecaudatus*, which species' underwing is described as having a narrow black trailing edge in males that is broader in females (the reverse is true).

For general ecotourists this book will prove an excellent resource, but birders should understand that much has been excluded, thereby reducing its value to this prospective audience.

Keith Betton

Les Ailes du Sahel—Zones humides et oiseaux migrateurs dans un environnement en mutation

Leo Zwarts, Rob G. Bijlsma, Jan van der Kamp & Eddy Wymenga, 2012. Zeist: KNNV Publishing. 564 pp, numerous photographs, drawings, figures, tables and maps. Hardback. ISBN 978-90-5011-412-7. €64.95 (www.knnvpublishing.nl).

French edition of the outstanding and award-winning *Living on the Edge: Wetlands and Birds in a Changing Sahel* (2009). For a review of this fascinating and beautifully produced book, packed with information presented in a highly attractive form, see *Bull. ABC* 17: 129–130. There are extremely few recent works on African ornithology in French; the publisher is therefore to be congratulated for making this milestone for ecological studies in the region available to a Francophone public. Furthermore, a French summary can be downloaded from http://en.mava-foundation.org/wp-content/uploads/2012/11/les_ailes_du_sahel_resume.pdf

Ron Demey

Obituaries

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Philip Anthony Richard Hockey: 1956–2013

Enthusiastic birder and ornithologist, Phil Hockey died on 24 January 2013 following a year-long battle with cancer. At the time, he was the Director of the University of Cape Town's Percy FitzPatrick Institute of African Ornithology. Among birders, he is best known as lead editor of the seventh edition of *Roberts—Birds of Southern Africa* (2005), a major project that saw *Roberts* 'reinvented' as a fully referenced handbook. Phil also was an author of the much-loved field guide *SASOL Birds of Southern Africa*, which is still going strong in its fourth edition 20 years after it was first published, and he wrote numerous other books on birds, including a monograph *Waders of Southern Africa*.

Over his long and distinguished career, Phil published more than 120 scientific papers covering a diverse array of subjects, from penguins to bustards, and from gulls to warblers. And, although much of his research had a strong applied nature, from the impacts of human disturbance, resource use, pollution and climate change, he also made important contributions to our understanding of the roles of birds in rocky shore ecosystems, and how food production determines migration strategies. Phil also was a strong advocate of making the science of birds accessible to the broader public. He wrote hundreds of popular articles for birding and more general magazines, and in 2008 he was awarded the Stevenson-Hamilton Medal for his contributions to the public awareness of science.

Phil was born in Bournemouth and grew up in Gloucestershire in the UK. He developed an early interest in natural history, particularly birds. In 1976, while studying for his B.Sc.

Phil Hockey in his youth (photographer unknown)

Phil Hockey in later years (Samantha Hockey) in Ecological Science at Edinburgh University, Phil assisted Ron Summers with a study of the breeding biology of White-fronted Plovers *Charadrius marginatus* at Langebaan Lagoon. After completing his first degree, he returned to the University of Cape Town with his first wife Carole first to register for a Ph.D. on African Oystercatchers *Haematopus moquini*. For much of this study he was based on Marcus Island, at the entrance to Saldanha Bay, where he conducted research on oystercatchers and their impacts on rocky shore biota. After graduating, Phil held a series of contract positions at the FitzPatrick Institute, until he was appointed as a lecturer there in 1986. His initial research focused mainly on shorebirds and their interactions with their food supplies. This work took Phil and his students to tropical Africa and islands in the Indian Ocean, as well as South America, the Canary Islands and the Middle East. He also was instrumental in setting up the atlas of birds in the south-western Cape, which was the forerunner of the first South African Bird Atlas Project, and he ran the bird component of a co-operative scientific programme on the ecology of the Karoo.

But oystercatchers remained his first love, and when evidence emerged that African Oystercatcher populations were in trouble, he initiated a large-scale programme to improve their conservation status. This was partly responsible for the banning of 4×4 vehicles on South African beaches, a measure which has had far-reaching conservation benefits that extend well beyond the benefits conferred on the oystercatchers. He also established a network of coastal observers who collected a wealth of data on the birds around the coast, many of whom became passionate advocates for coastal conservation. By the time of his death, there were more oystercatchers than when he started studying them three decades ago.

Phil retained a love for birds throughout his life, and was always happy to talk to other birders. He was a great raconteur, and consequently a sought-after speaker to bird clubs and more general audiences. For many years he was the Chairman of the Southern African Rarities Committee, and led regular birding trips to northern Namibia. He also had a strong passion for the Kalahari, typically visiting in midsummer when lesser mortals quailed at the intense heat. It was perhaps this experience, as much as his frustration with the woolly arm-waving about the potential impacts of climate change on birds, that prompted Phil to start the 'hot birds' research programme in the mid 2000s. This project is developing robust estimates of the impacts of extreme temperature events on desert birds, which will greatly improve our ability to predict the likely consequences of ongoing global warming.

Apart from his academic contributions, Phil was a good sportsman, playing a mean game of tennis and squash. He had an encyclopedic knowledge and an agile mind, and was renowned for devising bird-related puzzles for magazines. He also had a wicked sense of humour that remained steadfastly politically incorrect to the end, even after being appointed as Director of the Fitztitute in 2008. The large number of people from all walks of life who travelled from literally all over the world to attend his farewell party is testament to the man's charisma. As Barry Lovegrove said, Phil "understood the trade-offs of life better than anyone. His passion for birds, science, female post-grads, booze, cigarettes, parties, a good hypothesis, and the Kalahari, was breathtaking". He is sorely missed by his extended family at the Fitz. Our condolences go to Phil's wife Samantha and his family in the UK.

Peter G. Ryan

Mindy Baha El Din (née Rosenzweig) 1958–2013

With the tragically early passing of Mindy Baha El Din, on 18 March 2013, Egypt has lost one of its finest and most active advocates for natural history conservation, while the migratory birds that bi-annually pass between the continents of Europe and Africa have lost one of their greatest allies. Mindy Baha El Din was renowned for her immense energy and drive, and commitment to environmental issues within and outside Egypt. She was a force of nature in her campaigning spirit—but far, far more than that, she was a force *for* Nature.

Her utter commitment was brought home as I went through my diaries, reminding me of a phone call I received from Mindy in early 2011. Much of our conversation concerned the very tentative plans we had to write a paper for *Sandgrouse* on the status of Indian Silverbill *Lonchura malabarica* in Egypt. I had seen flocks of the species on Cairo's Zamalek Island and Mindy, although she had missed it when we visited the island together, had an array of previous sightings from other observers. But this was not just any phone call. This was on 2 February 2011, barely one week into the Egyptian Revolution, and Mindy was calling from the utter chaos of Cairo airport. It said two things about her—her total dedication to the safety and security of her young daughters Laila and Yasmine, and her complete passion for birds, especially the birds of Egypt.

It is difficult to say whether Egypt found Mindy, or Mindy found Egypt. It does not matter—the happenstance was fortuitous. Having studied Arabic and Economics at Indiana University she went on to graduate studies in ornithology at Cornell. Armed with the necessary paperwork, she joined what is now BirdLife International and found herself in Egypt. Her first major achievement, in 1988, was to establish an environmental education centre at Giza Zoo. It was an achievement of which she was justly proud, but one that she was to become increasingly frustrated about as the internal politics, corruption and incompetence of the now discredited zoo came to light.

Perhaps the defining moment of her life came in 1989, when she married Sherif Baha El Din, even at that stage Egypt's premier ornithologist and a world-class field naturalist. It cannot be overstated just how proud, publicly and privately, Mindy was of her husband. Neither can it be stressed too much how proud he was of her achievements.

Mindy Baha El Din, in Yemen, 2000 (photographer unknown)

Throughout the 1990s Mindy worked tirelessly for, and as a vocal critic of, many local, national and international organisations. I had the pleasure of accompanying her on many field trips and it is easy to forget, in the plethora of bureaucratic achievements in environmental advocacy, what a good field naturalist she was. She had an eye certainly. I can remember on one trip her finding what I assumed was an Eastern Olivaceous Warbler *Hippolais pallida* near Wadi Gimal in south-east Egypt. Mindy was not happy and stuck with the bird, which photographs eventually proved to be an Upcher's Warbler *H. languida*.

But my favourite Mindy story is from Zaranik in north Sinai, one spring in the late 1990s. We were birding by the pumping plant, an ugly concrete building with a leaking tap and small garden that provided sufficient water for a relatively luxuriant tree and precious sustenance for migrant birds. We had a wonderful afternoon's birding with, for me, two 'life' species. And then in and out of the tree's foliage I saw a sparrow different from the swarms of chirping House Sparrows *Passer domesticus*, white-cheeked and chestnut-capped, it was a Tree Sparrow *P. montanus*, but Mindy was rightly sceptical. It was, she told me, only the third record for Egypt. Eventually, with the light getting low, we left. Early the following morning, with Sherif, we staked out the pumping station once more, but nothing except for House Sparrows and other expected species showed themselves. And then came a huge shout, "Look! Richard's Tree Pipit!" What made it memorable was the utter confusion of the announcement, a confusion that summarised the excitement, and despite the confusion of linguistic euphoria it was the indeed a Tree Sparrow, not a Tree Pipit *Anthus trivialis*, that was finally showing itself.

In recent years Mindy embraced social media and became a tireless campaigner for a several causes, not least her campaign against the Porto Faiyoum Hotel project on the northern shores of Lake Qaroun in Egypt's Faiyoum—a Protected Area. As things stand, it seems to be a final victory for her tireless campaigning and advocacy. A pristine northern lakeshore in years to come would be a fitting tribute. She was also instrumental in setting up Nature Conservation Egypt (NCE).

I have spoken earlier of the extraordinary bond between Mindy and her husband Sherif. That bond ensures her name continues. While Sherif's reputation was assured by his field skills as an ornithologist, he has made a profession from herpetology and has ensured that her name lives on through two new gecko species, *Tarentola mindiae* from Egypt's Western Desert and *Hemidactylus mindiae* from south Sinai.

Mindy died after suffering a stroke on 14 March. She is survived by her husband Sherif and by their two daughters Laila and Yasmine.

Richard Hoath

Georges Oueda 1964–2012

On 10 December 2012, after suffering a cerebral stroke, Georges Oueda passed away, aged only 48. Georges was the Director of Conservation and the Important Bird Areas (IBA) Coordinator of Fondation Amis de la Nature NATURAMA, the BirdLife partner in Burkina Faso. Georges was the single most knowledgeable expert in ornithology in his country, and known to many across the international bird conservation community.

He was born on 27 August 1964 in Peotenga, Kourittenga province of Burkina Faso. In 1982, he attended the teachers college at Tenkodogo, and then completed secondary level education at Newton Lyceum in Ouagadougou, where he obtaind his Bachelor D certificate in 1986. With this level of education, Georges started his professional career, first at the Faculty of Mathematics and Physics at the University of Ouagadougou until 1988, then at the Faculty of Geography and Ecology of the State University of Kharkov in Ukraine, where in 1994 he obtained (with brilliance) his M.Sc. in Geography and Planning, orientation Nature Conservation and Wise Use of Natural Resources—Wetland Management.

On returning to Burkina Faso he started to work with Fondation NATURAMA in 1995. After a one-year practical period, he held the following positions: Head of Projects (1996–98), Head of Conservation Programme (1998–2003), Director of Biodiversity Conservation (2003–11) and finally Coordinator of IBA Monitoring from September 2011. A passionate birdwatcher, he started his Ph.D. thesis on ornithology in 2003, which he was about to defend if death had not taken him so early.

Throughout his tour of duty at NATURAMA, he was dedicated to making a difference for both biodiversity and people. His contribution to nature conservation in Burkina Faso cannot be over-estimated. Georges was the driving force behind setting up and training local conservation groups at sites like Oursi-Darkoye, Lake Higa and the Sourou Valley, now known as shining examples of community based conservation. Georges combined his ecological expertise with a keen eye for the needs of rural communities. The recent designation of 12 wetlands in Burkina as Ramsar sites was largely achieved by Georges' coordination and training. In the course of this year, the *Field Guide of Birds of Burkina Faso* will be published, a book into which he put so much work.

Georges was the ABC Country Representative and kept records, of which he had a remarkable memory. He was planning to establish a committee and vetting system to compile an official Burkina country list, profiting from the work for the upcoming field guide.

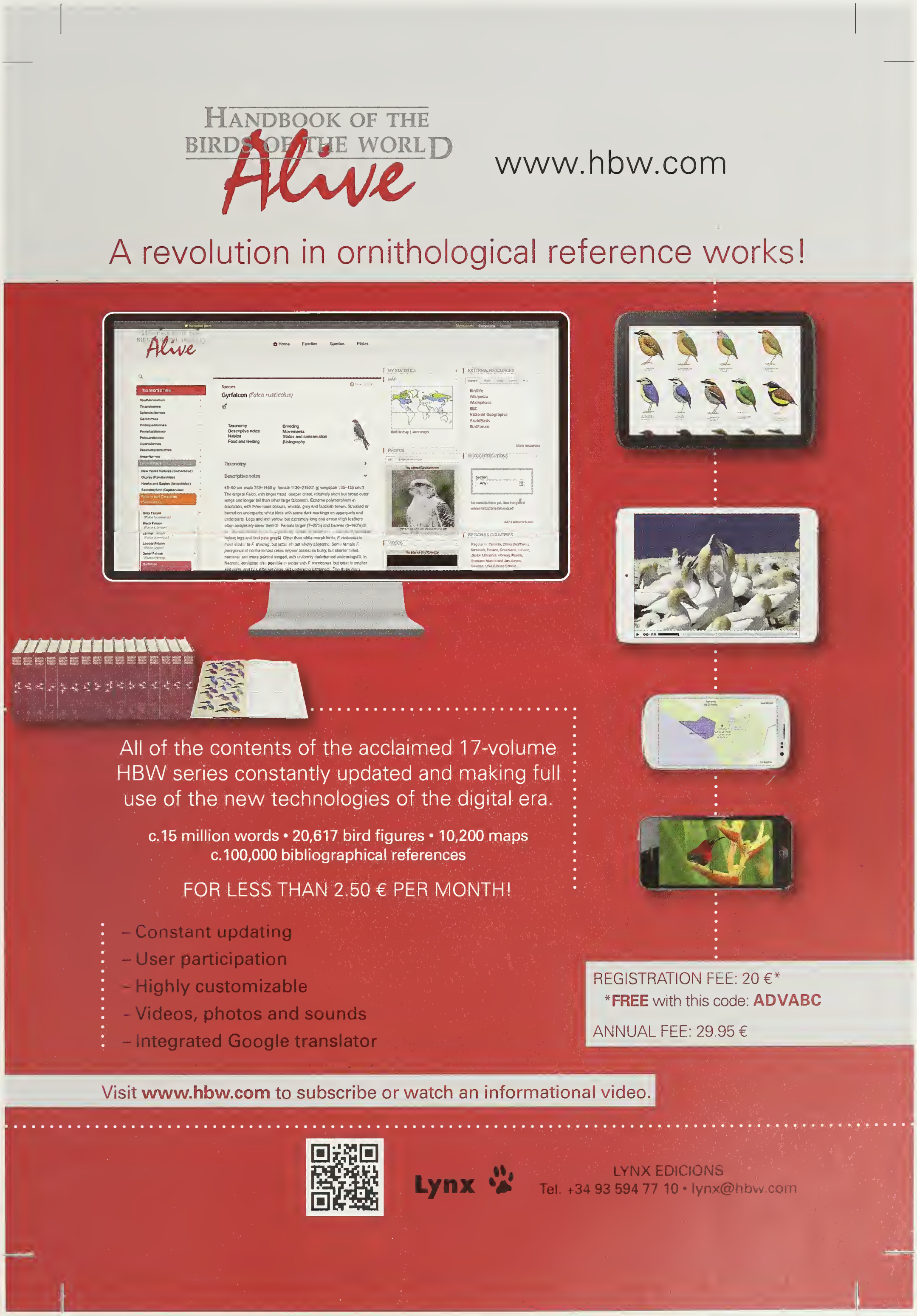
In 2005, NATURAMA engaged in a long-term partnership with VBN (BirdLife in the Netherlands), the start of a close and amicable working relationship. As a keen birder, he was interested in seeing new species during a visit to the Netherlands in February, which coincided with a very cold spell. Undeterred, Georges endured the freezing temperatures, helped by cigarettes and two winter coats, adding a number of northern winter birds to his list. Later, we had a lively exchange with a bird group, who had been sponsoring the work in Oursi (after searching for Black Woodpecker *Dryocopus martius* without luck). Georges had the admirable ability to interact with people, very often with a twinkle of humour in his eyes, but 100% serious in his commitment. Putting the concept of flyway conservation into practice, the success of Georges' and NATURAMA's work in IBAs inspired the project Living on the Edge, comprising similar work at 12 sites in four Sahelian countries and programmes for research, advocacy and awareness-raising, involving VBN and the Royal Society for the Protection of Birds. Georges leaves an important legacy in his contribution to the present momentum for flyway conservation of migratory birds and their habitats.

Georges was fond of protraying himself as something of a grumpy pessimist, unfailingly responding to the greeting "Ça va?" with the response "un peu!". However, one could always tell, from the glimmer of a wry smile and that twinkle, this was an act: in truth, he enjoyed life thoroughly and always made the most of any situation.

Georges Oueda, Oursi, Burkina Faso, November 2009 (Bernd de Bruijn)

Georges was a source of inspiration to many in the BirdLife partnership. He had many plans to continue and expand his work. His passing leaves a large gap, mostly of course for his family, but also in NATURAMA and the BirdLife Partnership as a whole. Our thoughts are with Georges' wife Blanche and his three young children, Mike, Mireille and Gloria. George was an avid birder, a man of the people, with a great sense of humour. He fought a good fight and we will truly miss him.

Bernd de Bruijn, Danaë Sheehan,
Lincoln Fishpool, Phil Atkinson and Idrissa Zeba



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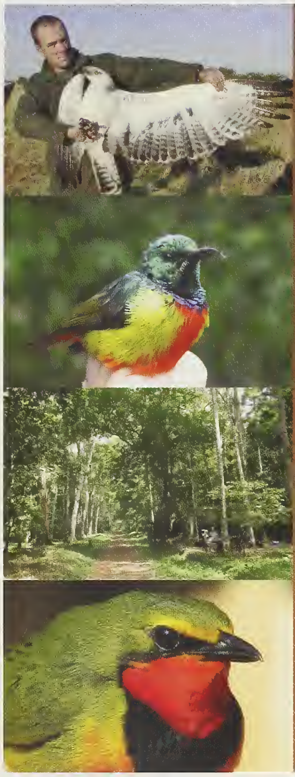

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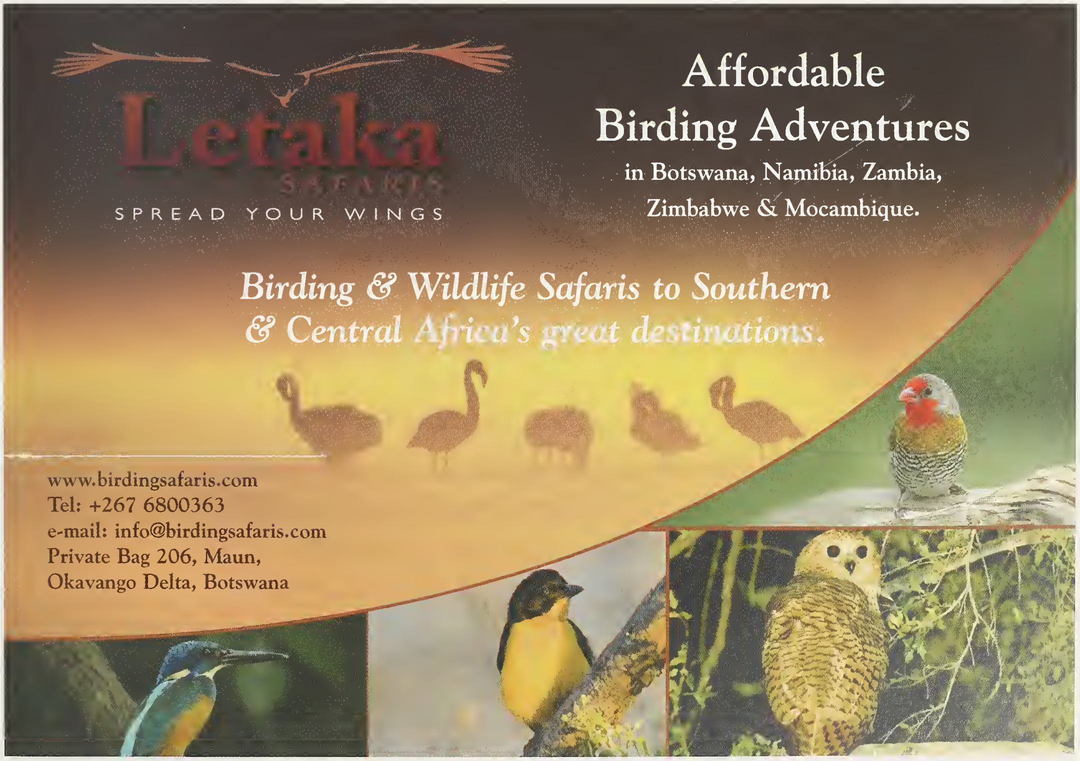

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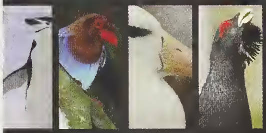

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Notes for Contributors

The ABC welcomes original contributions on all aspects of the birds of Africa, here defined as the area covered by Collar, N.J. & Stuart, S.N. 1985. *Threatened Birds of Africa and Related Islands: The ICBP/IUCN Red Data Book*. Cambridge, UK: International Council for Bird Preservation, namely continental Africa, Indian Ocean islands west of 80°E, e.g. Madagascar, the Mascarene Islands and Socotra; Atlantic Ocean islands on or east of the mid-Atlantic ridge, e.g. the Tristan da Cunha group, the Azores and the Canaries.

Contributions will be accepted subject to editing and refereeing by independent reviewers, where appropriate. The Editorial Team will be happy to advise authors on the acceptability of material at draft stage if desired.

Submissions

Two hard (printed) copies should be sent unless submitting by e-mail (preferred) to the editor's address on the inside front cover. Typewritten manuscripts should be double-spaced, on one side of the paper only, with wide margins all round. All submissions are acknowledged.

Contributions are accepted in English or French: French summaries are required for all papers published in English, and vice versa. Those submitting papers should supply a summary for translation into English, or French, as appropriate.

If you submit your contribution on CD or floppy disk, please state computer (e.g. IBM compatible PC, Macintosh) and word-processing package (e.g. Word, WordPerfect) used.

When sending your contribution on disk, please do not key anything in ALL CAPS (i.e. with the CAPS LOCK key depressed) unless the combination always occurs in that form (e.g. 'USA'). Do not use the carriage return key at the end of lines, and do not right justify the margins. When formatting tables use one tab, and not spaces, between each column. Unless a sketch map is provided as part of the article, the names of places should follow those on standard or readily available maps (preferably a recent edition of *The Times Atlas of the World*).

Preferred names

Given the current instability over worldwide lists of bird names, authors are requested to follow those used in *The Birds of Africa* Vols. 1–7. The African Bird Club has recently published (www.africanbirdclub.org/resources/checklist.html) a checklist of birds in its region. This is based on *Birds of Africa* but incorporates more recent revisions where appropriate. It includes preferred scientific, English and French names, as well as races and alternatives used by publications widely used in Africa. For bird names this list should be used or at least the preferred name used there should be given as an alternative. For non-*Birds of Africa* species (e.g. from the Malagasy region) use Dowsett & Forbes-Watson (1993). Deviation from such works should be noted and the reasons given. The Editorial Team will keep abreast of changes in nomenclature and when an agreed list of African names is available, will consider switching to follow it.

Style

Authors are requested to follow conventions used in the *Bulletin of the African Bird Club* and to refer to a recent issue for guidance. A detailed style guide can be obtained, either electronically or as a hard copy, on request from the Managing Editor.

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The ABC Representatives scheme aims to support existing members by providing a local point of contact in their region, for example, to answer queries to the Club, to solicit submissions for the bulletin, and possibly to arrange local meetings for members. Existing ABC members can contact their local Representative in the first instance with queries relating to the Club. ABC Representatives help to recruit new members in their region, for example, by distributing posters and arranging local advertising. In Africa, ABC Representatives help to identify opportunities to invest the ABC Conservation Fund and candidates for the Supported Membership scheme.

The Club aims to appoint many further ABC Representatives. If you are interested in supporting and promoting the Club in your region, have any queries, or require further information relating to the ABC Representatives scheme please do not hesitate to contact the Membership Secretary at the Club address, e-mail membership@africanbirdclub.org.

ABC is seeking Country Representatives in the following countries, principally within the Club's region: Azores, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde Islands, Chad, Comoros & Mayotte, Côte d'Ivoire, Djibouti, Equatorial Guinea, Gabon, Guinea-Bissau, Guinea Conakry, Madeira, Mauritania, Mauritius, Morocco, Mozambique, Netherlands, Niger, Réunion, Rodriguez, São Tomé & Príncipe, Sierra Leone, Socotra, Somalia, St Helena, Sudan, Togo, Tristan da Cunha and USA.

Supported and Affiliated Membership

The Supporting Members scheme is a key part of the Club's strategy of encouraging the spread of knowledge and understanding of birds as widely as possible throughout Africa. The scheme enables Africans who would not otherwise have the resources to join, to become members of the Club. The scheme is funded by Supporting Members who pay a minimum of UK£30 to cover their own membership and the subscription of at least one African member. The money they contribute over and above their own subscription is placed in a special fund that is used to cover the membership expenses of African members whom they may have nominated, or who have been nominated by other Club members.

Although we have suggested a minimum of UK£30 to become a Supporting Member, any contribution is welcome. All members of the Club, even if they do not feel able to become Supporting Members themselves, are invited to nominate candidates for supported memberships. Candidates should be nationals of an African country, with a genuine interest in wild birds but without the resources to become members in their own right. Africans who think they may qualify are very welcome to put their own names forward, supported by a letter of recommendation from someone such as their employer, teacher or an officeholder in a local wildlife organisation.

The scheme now also includes clubs who wish to be affiliated with the African Bird Club in African countries where it is difficult for local individuals to become members in their own right. Clubs accepted for membership under the scheme receive up to six copies of each issue of the bulletin for circulation among their members. Instead of paying a membership fee, Clubs are asked to provide a short annual report on their activities that may be published in the bulletin. Clubs interested in becoming Affiliated Member Clubs are invited to apply to the ABC Secretary giving details of their membership, their constitution or a statement of their objectives and conditions of their membership, and their activities to date.

ABC Information Service

ABC offers a service to help members with information requests. Perhaps you are planning a trip to Africa and need local advice, or maybe you are in search of an obscure fact about an African species. The Club does not guarantee to find all the answers but will try to help. The service is free to ABC members. Contact: Keith Betton, who is also custodian of ABC's journal library, at 8 Dukes Close, Folly Hill, Farnham, Surrey, GU9 0DR, UK. Tel: +44 1252 724068. E-mail: info@africanbirdclub.org.

AfricanBirding e-mail discussion list

Launched, in October 2000, by the ABC and the Pan-African Ornithological Congress, AfricanBirding or AB, as it is known, has become a useful forum for those interested in African birds. To join the discussion, which averages 1–2 messages a day, send a blank e-mail to AfricanBirding-subscribe@yahoogroups.com. You will then receive an e-mail instructing you how to join.

The Club also maintains a list of members' e-mail addresses. This list is confidential and used only for Club purposes, e.g. for informing members of upcoming events and news concerning the Club. It is not divulged to anybody outside the Club or used for commercial advertising. At present it includes addresses for about 50% of the membership. Please send any additions or amendments to the Membership Secretary: membership@africanbirdclub.org.

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